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Volume 17 March 1948 Number 3

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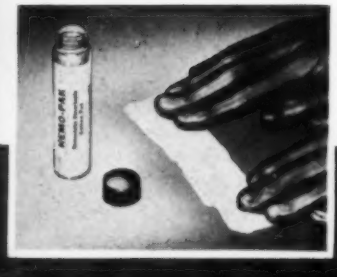

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This magazine is published to promote sound thought upon and concerning industrial medicine and traumatic surgery. To that end it will contain articles, news items, reports, digests, and other presentations, together with editors' comments. The editorial policy is to encourage frank discussion. On this basis contributions are invited. The editors will exercise care in checking on the accuracy of data printed but in all other respects articles and opinions of which expression is allowed are the opinions of their authors—the editors reserving in all cases the right to comment on the same in the current or any subsequent issues as they may be inclined.

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RECENTLY our office was asked to send out a questionnaire regarding dental services in industry. This was at the request of DR. WILLIAM A. SAWYER to be used in his presentation at the 33rd Annual Convention of the AAIP & S on Wednesday afternoon, "The Attitude of Industrial Physicians toward Industrial Dentistry." One hundred and fifty questionnaires were sent out to medical directors of various industries and members of AAIP & S. In less than 30 days 124 of these questionnaires were returned. Many of them added much instructive and informative material in the way of foot notes and letters. This 83 1/3% return of such a questionnaire is not only phenomenal but indicates also the significant interest in industrial dentistry. These questionnaires will constitute the basis for DR. SAWYER'S presentation, which should be most interesting.

William Henry Johnson, M.D.

WE REPORT the death of DR. WILLIAM HENRY JOHNSON, 54 Agassiz Circle, Buffalo, New York, on August 16, 1947, of broncho pneumonia. DR. JOHNSON was a Fellow of American College of Surgeons, Attending Surgeon Emergency Hospital. He was a member of AAIP & S through the NEW YORK STATE SOCIETY OF INDUSTRIAL MEDICINE, component society. He was 58 years of age.

Barney John Hein, M.D.

ON AUGUST 17, 1947, the AAIP & S lost one of its outstanding Fellows. DR. BARNEY JOHN HEIN, 58 years of age, died of cerebral hemmorage after a very sudden onset and short illness. He became a member of this Association on April 21, 1937, and a Fellow of the association April 10, 1941. Although an authority

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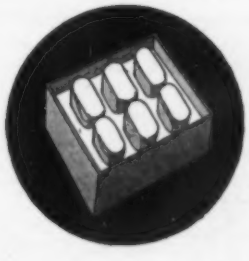

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and diligent worker in the specialty of orthopedic surgery, he still maintained a genuine and lasting interest in industrial medicine and surgery. He received his degree Doctor of Medicine at Toledo Medical College in 1912, and continued his graduate studies after a valued service as Medical Officer in World War I. He was president of Ohio State Medical Association in 1937; President, Academy of Medicine, Toledo; and a Fellow, American College of Surgeons. He maintained his industrial affiliations as physician and surgeon for Interlake Iron Corporation, A. Bently & Sons Company, Toledo Shipbuilding Company, DeVilbis Company, Bunting Brass & Bronze Company, Spicer Manufacturing-Division of Dana Corporation, Dura Company, and National Milling Company. He published many articles bearing on traumatic industrial medicine and surgery; and was associated with DR. CLARENCE D. SELBY while the latter was at Toledo. We all share in this tremendous loss. MRS. HEIN writes, "DR. HEIN thought a great deal of his colleagues in the AMERICAN ASSOCIATION OF INDUSTRIAL PHYSICIANS AND SURGEONS and was proud of his membership in the Association. He always looked forward to receiving and reading INDUSTRIAL MEDICINE."

NEWS

ON DECEMBER 30 DR. L. A. ENSMINGER, Indianapolis, retired as Chief Surgeon for the New York Central Railroad in the Indianapolis area. For more than 40 years he had been associated with the system, dating way back when it was known as the Big Four. DR. FORD was then Chief Surgeon and we recall, back in our student days, when DR. ENSMINGER, then a student, first became connected with DR. FORD. He was named to the head post in 1919. His father was one of the pioneer Indiana surgeons, being located in Crawfordsville.

—*J. Indiana State M.A.J.*, February, 1948.

"Panorama"

PHILADELPHIA, which claims to be only city x-raying its food handlers, has separated 79 tuberculosis persons from their jobs, is keeping an eye on 700 arrested cases. . .ALL CITIZENS should be compelled to file an annual re-

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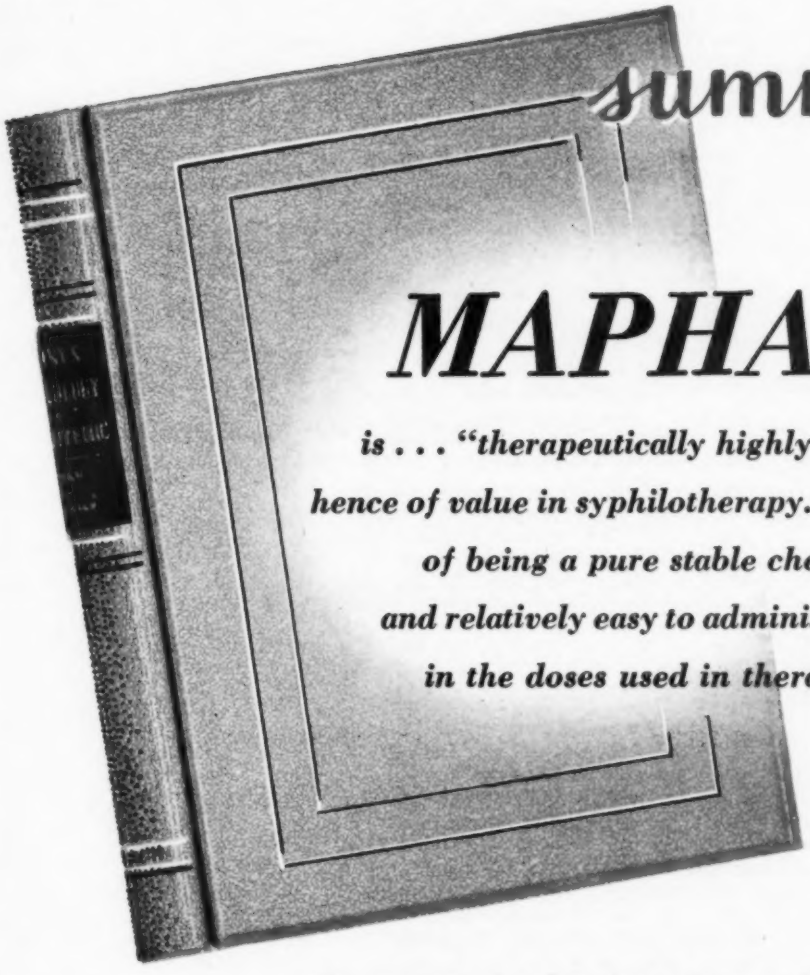

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*Cushny, A. R.: Pharmacology and Therapeutics, 13th Ed., Lea & Febiger, Philadelphia, 1947, p. 183.

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port on their health, says DR. HENRY H. KESSLER, New Jersey rehabilitation specialist. He wants state to keep lifetime health record for each inhabitant ...COMMON COLD is caused by mental depression, says DR. DOUGLAS G. CAMPBELL, California psychiatrist. He thinks colds are especially common in January because many people have been disappointed by Christmas gifts.

—*Medical Economics*, February, 1948.

Diagnostic Service

THE C. I. O. HEALTH INSTITUTE out East Jefferson way, under the able directorship of DR. I. DONALD FAGIN, has been offering union members a complete diagnostic medical service and refers all its clients back to their family physicians for treatment. The study of industrial health hazards is only a small part of the work of the Health Institute.

—*Detroit Medical News*, January 19, 1948.

Long Island Course

THE Long Island College of Medicine announces its Fifth Postgraduate Course in Industrial Medicine to be given during the two-week period April 5 to April 16, 1948. The course will be conducted under the auspices of the Department of Preventive Medicine and Community Health by a group of more than 60 leaders in industrial medicine, authorities in allied fields and members of the faculty. This presentation continues the series of orientation courses in industrial medicine begun by the College in the fall of 1942 for promoting the health of gainfully employed workers and their families. It will also be the initial undertaking of the new Institute for Occupational Health of the Long Island College of Medicine, a unit of the College recently established to devote particular attention to the problems of health in relation to occupation. The main objective of the course is to provide physicians engaged in full-time or part-time industrial practiice, as well as those who wish to enter this field, an opportunity to become acquainted with the most recent developments in the rapidly expanding specialty of industrial medicine. Inquiries should be addressed to DR. THOMAS D. DUBLIN, Department of Preventive Medicine and Community Health, 248 Baltic Street, Brooklyn 2, New York.

—*Industrial Hygiene Digest*, January, 1948.

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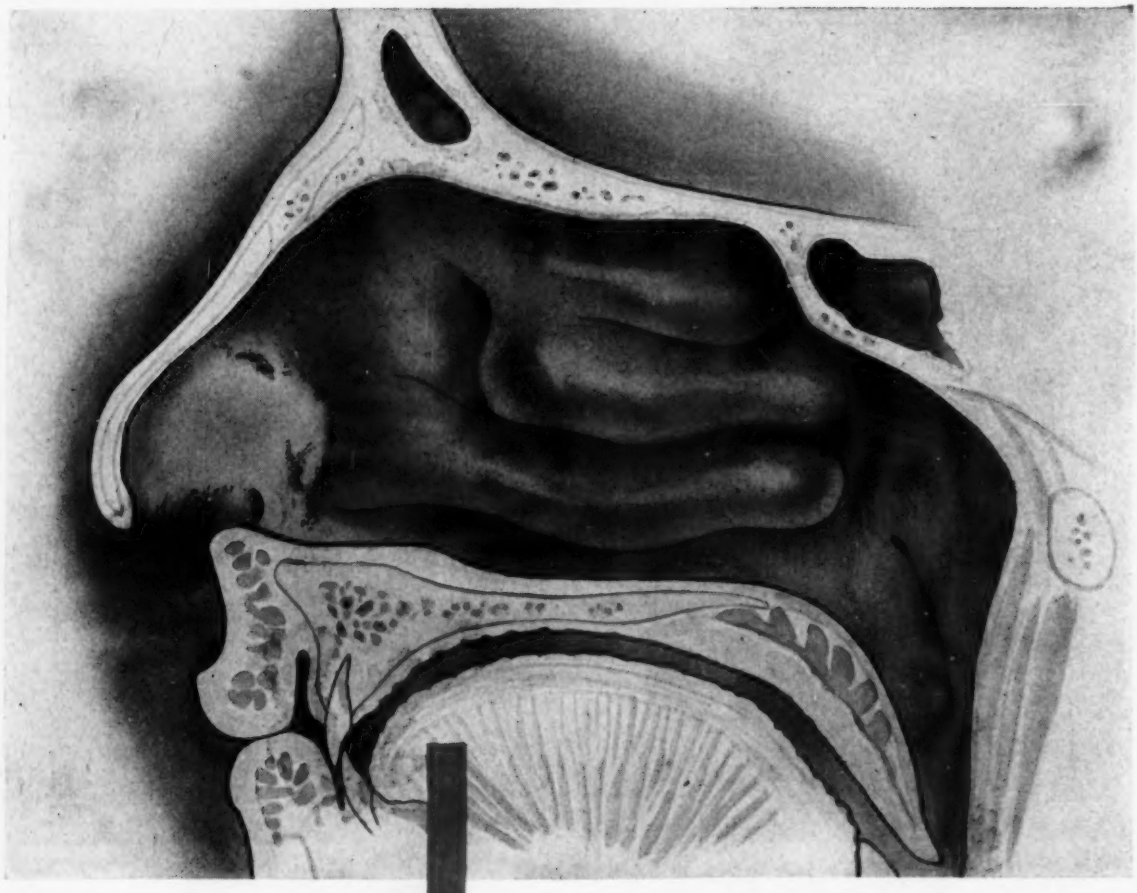

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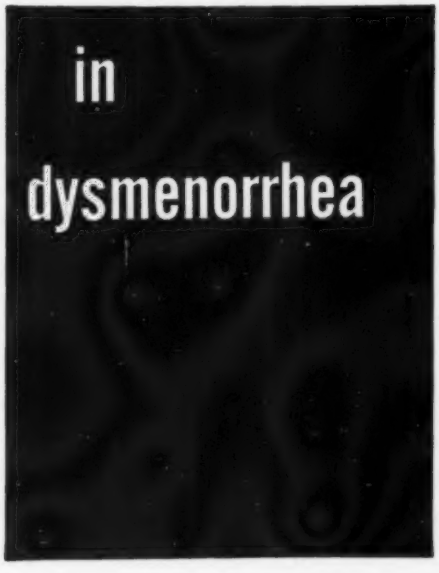

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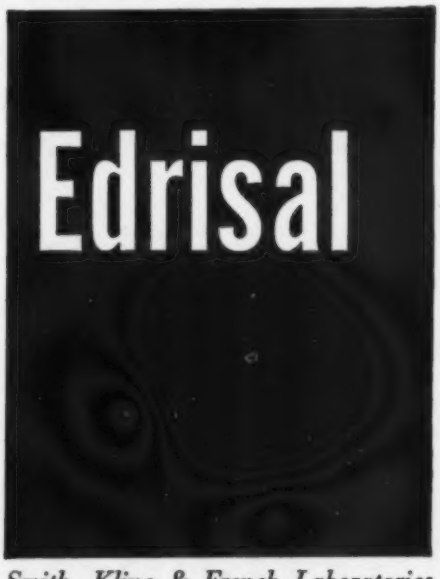

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INDUSTRIAL MEDICINE

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Surgical Repair of Facial Paralysis

PAUL W. GREELEY, M.D.,
Associate Professor of Surgery and Head of Plastic Surgery, University of Illinois; Plastic Surgeon, C. R. I. & P. Railway, Chicago

IT IS the purpose of this presentation to discuss some of the methods and results obtained in the treatment of facial nerve injury.

It is difficult to estimate with consistent accuracy just which cases of facial paralysis may tend to regenerate spontaneously, and, when this does occur, what degree of regeneration may be expected. Naturally, those lesions secondary to removal of extensive mixed tumors of the parotid or acoustic neuromata may be looked upon as permanent since much of the nerve will be sacrificed by necessity. Those following trauma such as skull fractures, mastoid surgery, or bullet wounds may arise from edema around the nerve rather than actual division of the nerve trunk. If the edema is slight, spontaneous response may be noted within a short time, but, with more extensive injuries, it has been our experience that evidence of some return in facial muscle function may be apparent well over one year after the original injury. In these instances of apparent late regeneration, it has also been observed that the return of function is only partial and never complete. In fact, a few cases that have been operated upon at a late date probably had a little function present for a long time, but it was masked by the overaction of the normal side before it had been controlled by a supporting operation of the paralyzed side.

Consequently, in view of our experience with facial paralysis wherein it cannot be ascertained whether the nerve has actually been severed, we feel that some type of surgical repair should be undertaken if marked spontaneous return has not become manifest within three to four months after injury. This is advised because only partial spontaneous return in nerve function can be anticipated beyond this time, and supplementing a partially paralyzed face by one of the supportive operations will eliminate much of the over-action of the normal side and hence permit the injured side to function to its greatest possible degree.

The operative methods for the correction of facial paralysis may be classified under the following groups:

1. Neurosurgical.
2. Mechanical support with fascia lata.
3. Temporal and masseter muscle transplants.
4. Combination of mechanical support with fascia and muscle transplants.

With the possible exception of facial nerve injury following radical resection of contiguous neoplasms, all lesions of the facial nerve that have not shown satisfactory return in function within three months should be given the benefit of neurosurgical consultation before undertaking any method of plastic surgical repair. Division of the nerve trunk in a lacerated wound should be united by prompt primary suture of the two ends. Those with loss of nerve substance—and these are usually within the facial canal—can frequently be repaired with a nerve graft to fill in the hiatus.

Another type of neurosurgical procedure is that of nerve substitution. Anastomosis of the distal end of the divided facial nerve to the hypoglossal or spinal accessory nerve has been executed many times, but the net results are not too acceptable because the associated movements involved when trying to move the face muscles are awkward and frequently more conspicuous than the original facial paralysis. In consequence, operations for nerve anastomosis are losing popularity in favor of procedures giving rise to better function.

Support of the paralyzed face with autogenous strips of fascia lata was first advocated by Kirschner and Lexer, but refinements of their original contributions have followed during the ensuing years. In general, the early procedures involved the subcutaneous transplantation of fascia strips from an incision in the temporal area, down to the angle of the mouth, to the corner of the nose, and beneath the lower eyelid. When fixed to these points, they were sutured at their upper ends to the temporal fascia, using enough tension so as to hold the paralyzed face at a normal level. This method did not produce any activation, but a fair cosmetic result was obtained and the patients invariably stated that they felt more comfortable when the sagging was eliminated.

It would be of interest at this point to mention the use of tantalum wire or mesh as a substitute for the use of fascia strips. This procedure is, of course, simpler from the standpoint of the

From the Department of Surgery, Division of Plastic Surgery, University of Illinois College of Medicine, the University of Illinois Research and Educational Hospitals and St. Luke's Hospital, Chicago; presented at the 58th Annual Meeting of the AMERICAN ASSOCIATION OF RAILWAY SURGEONS, Chicago, November 24, 1947.

surgery involved. However, tantalum wires have frequently cut through from pressure necrosis and there always remains potential foreign body reaction from any type of foreign material over a period of time. Since living tissue (i. e., autogenous fascia strips) has proved satisfactory over many years' experience, there seems to be little excuse for the use of material of the foreign body type such as tantalum.

In order to improve the results obtained by simple fascia support and gain further activation, the procedure has been supplemented by various types of muscle pedicle operations. The use of muscle pedicles alone does not ordinarily support and correct the sagging of the face. Hence, if the asymmetry is overcome by the use of fascia lata support, some activation can then be added by the transplantation of one or more muscle pedicles.

To the angle of the mouth, a bundle of the temporal muscle may be turned downward or one from the anterior border of the masseter muscle mobilized upward and forward. For the eyelids, two bundles, one for the upper and one for the lower lids, are turned forward from the anterior surface of the temporal muscle. In any of these muscle transfers, the muscle bundle proper is never long enough to reach the point into which it is to be secured. Consequently, additional length is obtained by suturing a strip of either fascia lata or temporal fascia to the distal end of the muscle and finally into the terminal points at the angle of the mouth and to the periosteum of the base of the nasal arch where the lid strips are anchored. With these muscle bundles secured to the angle of the mouth and around the eyelids, the patient can then obtain some activation by learning to bite down, i. e., to contract the temporal and masseter muscles, when he wishes to smile.

An additional procedure has been contributed by Adams which permits some elevation of the paralyzed brow. This is accomplished by transferring a pedicle from the medial border of the normal frontalis muscle to a point where the lower border of the pedicle is secured subcutaneously to the medial portion of the opposite or paralyzed side of the forehead.

It should be pointed out that, in performing any muscle pedicle operation, a reasonably large mass of muscle should be utilized. Failure to observe this may lead to disappointing results, since a narrow pedicle may undergo atrophy from lack of sufficient blood supply to maintain its viability.

In individuals who have had a facial paralysis of long standing, one frequently observes considerable stretching of the overlying face skin. In situations of this type, a better end result can be obtained if the redundant skin is excised such as one would do in a "face lifting" operation, confining the procedure, of course, strictly to the paralyzed side.

A further point of importance deals with the level at which the transplanted fascia or muscle pedicles are placed. Fascia should not be inserted too superficially or a permanent skin furrow will be noted along its course beneath the skin. Likewise, when turning down a large pedicle of temporal muscle to the angle of the mouth, a large bulge in the cheek will be made where the mass crosses the zygomatic arch. This can be obviated by resecting a segment of the zygomatic arch through which the muscle pedicle may drop and thus eliminate the swelling.

Summary

ALL CASES of facial paralysis should be given the benefit of neurosurgical consultation before deciding upon a plastic surgical operative procedure. Nerve suture and nerve grafts give the most ideal results in selected cases. The operations of nerve anastomosis are not desirable because the associated movements involved when trying to move the face are usually more conspicuous than the original facial paralysis.

2. The simplest and most satisfactory plastic surgical corection is obtained by supporting the paralyzed face with strips of autogenous fascia lata. The use of tantalum in any form is not recommended for this purpose.

3. Some activation of the fascia supported face can be obtained by supplementing the operation with one of the muscle transplant procedures. When transferring a muscle pedicle, it is emphasized that a bundle of sufficient size to maintain its viability be employed.

4. The success or failure to gain motion of the paralyzed face following a muscle transplant operation depends largely upon the intelligence of the patient and his willingness to practice facial muscle movements before a mirror until he has educated himself to utilize the muscles in their new locations.

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Socialized INDUSTRIAL Medicine?

PAUL B. REASER, M.D.,
Medical Director, Tucker Corporation,
Chicago

CAN an employer be held liable for a disability resulting from an ordinary ailment such as heart disease, cancer, hypertension and tuberculosis if that ailment is activated during employment? On this question the lawmakers and judges of our country are taking an untenable position in enacting and interpreting statutes concerned with the liability of an employer to his employees.

The words of Epicurus in 300 B.C. fit the present situation: "Among actions which are sanctioned as just by law, that which is proved on examination to be of advantage in the requirements of men's dealings with one another has the guarantee of justice, whether it is the same for all or not. But if a man makes a law and it does not turn out to lead to advantage in men's dealings with each other then it no longer has the essential nature of justice."

The history of legislation protecting employees dates back to 1880. Before this time a workman was practically a slave. Perhaps it would be illuminating to outline the situation as it existed in say 1847, a hundred years ago—when, incidentally, the "Communist Manifesto" was written by Marx and Engels.

A worker in 1847 could not be forced to enter employment against his will as was possible not too many generations previously, but servitude for a year was common. If he attempted to leave before his time was up he was forcibly returned by law enforcement agencies. He had to do as he was commanded by his employer for as many hours a day and under such circumstances as existed irrespective of health or happiness.

There were then no minimum wage laws and no compensation privileges except as he tried to collect in court under common law. If he refused to work he could be whipped and/or confined to an institution at hard labor. Furthermore, his children and wife could be similarly employed. If he was killed during work his survivors had to prove in court that his death was caused by the personal negligence of the employer. No other cause was basis for action. Such a state of affairs undoubtedly provided excellent food for the voracious Karl Marx.

What has occurred since then?

In 1880 the Employer's Liability Act was passed in England. This act created statutes to protect the workingman from the common law, the only jurisdiction existing prior to this time. Every statute passed since then has been enacted for this reason. The most important was the Workmen's Compensation Act of 1897 and its subsequent modifications. By far the most comprehensive and ideal laws were originated in Germany in 1884. These statutes displayed a justice not yet manifested by some of our own states.

We in the United States were slow to take up this problem. Even now one state has no such statutes. It appears, however, that the democratic philosophy of "going overboard" has been displayed quite prominently. There have been many court decisions which out-Marx Marx.

AT THE present time there are four types of benefits offered to workers:

1. Workmen's compensation and occupational disease acts covering disabilities incurred in the course of and arising from employment;
2. Vocational rehabilitation which provides for re-education or training of those handicapped;
3. Unemployment insurance; and
4. Disability insurance plans, including compulsory state disability insurance.

All of these plans involve the triumvirate of the employee (and his social representatives), the physician, and the employer.

There can be no denying that the over-all objectives involving the employee must aim toward security and this must be even further extended as social progress is made. Social representatives include governmental agencies and workers' organizations of various types which have for the most part demonstrated this intent.

By the same standards there can be no criticism of the role played by the medical sciences. The sole objective of medical investigation of working hazards has been to improve the status of the worker. The history of industrial hygiene contains innumerable instances of unbiased investigation for the benefit of the worker. In industrial medicine, as in all aspects of medicine, the individual is paramount.

It must also be fairly stated that a great deal of the social progress made in the last half century has been initiated by far-sighted employers. There are too many examples to be cited in this paper.

Wherein lies the difficulty?

To determine this we must consider critically the mechanisms and aims of the four types of benefits available to workers.

At the present time in most states workmen's compensation and occupational disease legislation is concerned with protecting the worker from his employment environment. There has never been any intent to cover more liability than this because the burden of cost lies with the employer. His responsibility as a social unit covers primarily the environment he provides. As hazards are discovered they should be corrected. The motivating force has been and must continue to be that expenses resulting from unsafe

environments are his responsibility. The role of the medical sciences has been to point out disease hazards of an insidious nature that may be harmful to an employee. Such disease relationships should result in new legislation. If the law states that any occupational disease is included there can only be incessant investigation to associate a causal relationship to employment. Furthermore, a great number of industrial concerns are carrying out their obligations far beyond the letter of the law.

Before evaluating the extent of coverage of such laws the principal aims of the other three plans must be discussed. One cannot consider workmen's compensation without placing it in its true position in a social pattern.

Vocational rehabilitation is based on the concept that an individual is an asset to a society if he can regain his ability to earn a livelihood. His disability may or may not have been industrially acquired and compensated. We have an extensive nationwide plan to do this which involves both state and national funds. It is not based on the insurance principle, however. The aims already achieved are prominent milestones in human relations.

The same might be said for social security in the form of unemployment insurance. If a worker is unable to earn a livelihood because of poor social management and a lack of jobs it is a problem of society partially to support him until work is available. The funds are secured from wages and salaries and administered by the Federal government. It is a form of true insurance.

The last type of benefit, group disability insurance, at the present time operates on the principle of true insurance also. The probability of any group of individuals having members who will require support during a degenerative disease, ordinary ailment, or non-occupational injury has been carefully worked out over a period of years. This is exact enough to calculate in advance how much such benefits will amount to, and to prorate the total cost among individual members of a group with or without the participation of an employer. An industrial concern of sufficient size can administer its own program, but for the most part it is handled by insurance companies which have been developing actuarial tables for this purpose. At this time these programs are privately organized and operated, except in Rhode Island and California where compulsory state administered plans are in operation. There are strong indications that disability insurance may be absorbed into the over-all pattern of social security and administered by governmental agencies. Whether it is or not does not alter the problem of this discussion.

Thus we have compensation for employment-connected disability being paid for both by governmental agencies (in the case of rehabilitation) and by industry (in the case of workmen's compensation). We have unemployment insurance and group disability insurance as true insurance benefits. The former is administered by the government and is compulsory. The latter is compulsory in two states, Rhode Island and California, but for the rest it is voluntary and privately operated.

THERE are, however, several important conflicts among these benefits. For example, an employee receiving workmen's compensation cannot receive unemployment insurance or the usual disability insurance. He is eligible for vocational rehabilitation, however. An employee receiving group insurance benefits likewise cannot obtain either unemployment insurance or workmen's compensation. He does receive vocational rehabilitation if eligible. An unemployed person receives only unemployment insurance; in an exceptional case he may be eligible for vocational rehabilitation as well.

With such a series of complicated relationships it is necessary to evaluate the various discrepancies that exist in relation to workmen's compensation.

The underlying principle of workmen's compensation is that if an employer provides an environment which is instrumental in causing disability the cost of this must be met by him. Thus industry bears the entire cost of employment-connected disability. In other words, an employer admits this responsibility.

If on the other hand industry sets up a group non-occupational disability insurance there is no acceptance of any responsibility for the occurrence of such disability. An employer may participate by bearing part of the cost of the program but it only means that he is contributing to the pro-rated capital sum. This is true whether the plan is self or insurance company administered.

There could not be a more direct absolvence of employer responsibility than is manifested by the state administered disability insurance programs that are being instituted as an adjunct to unemployment insurance. In these plans the cost is borne solely by the workers in the form of a wage deduction.

Thus the workers and their representatives acknowledge that the problem of non-occupational disability does not directly concern the employer.

There are, however, some benefit plans whereby industry bears the entire cost of non-occupational as well as occupational disability. Under such plans there are usually fairly complete physical examinations to determine if an employee is eligible for full benefit. It is unlikely that potential or arrested disease states would be considered as good risks. In the ordinary group disability insurance plans no such examination is required and the operation of the plan is based solely on the expected incidence of such conditions.

WITH this background let us discuss the point in question. *Can* an employer be held liable for a disability resulting from an ordinary ail-

ment such as heart disease, cancer, hypertension and tuberculosis if that ailment is activated during employment? *Should* he be?

An employer *can* be held liable if the industrial commissions and courts so interpret the existing laws. The specific wording does not exist or there would be no need for court action. Most decisions are based on the 1880 phrase "arising out of or in the course of employment."

The question as to whether or not an employer *should* be liable is one for democratic action. Industry is a segment of society, operating with certain costs and profits. Until society as a whole, including industry, agrees to this responsibility it cannot be forced without disrupting an economic structure. If this liability is accepted profit and loss must still be considered and an industry would be foolish to incur unnecessary expense, i.e., poor personnel risks.

This course is gradually being forced by the interpretations of existing statutes. For example, during 1946-1947 casual survey reveals 36 very interesting decisions mostly by state supreme courts. That the final decision may have been due to legal manipulation does not change the essential facts.

Heart attacks were considered compensable.[8, 10, 13, 14, 20, 21, 23, 26, 27] In one case this condition was considered occupational.[20,23] The attack may even occur months later.[13] Hypertension or apoplexy can be compensable[2] or even occupational[3] or caused by an accident.[6] Cancer can be activated, and thus the employer's responsibility.[12, 19] Tuberculosis can be compensable because of a direct injury to the chest,[16,19,25] to the head,[11] during convalescence from hernia repair,[5] or after leaving the hospital against advice while convalescing from an injury.[7] Suicide caused by melancholia resulting from an industrial injury was compensable.[22] Paralysis caused by fright was compensable.[28]

There are also cases of very similar circumstances which were declared non-compensable. The impression is obtained that the manner in which the evidence was presented played the most important part.

This mass of legal precedent leaves but one course for industry—a pre-employment physical examination must be performed on every applicant with the sole objective of eliminating any who in the above criteria may become a compensable liability.

The significance of this can be appreciated when it is realized that 5,000,000 men were rejected by the armed services during the last emergency. There were 317,500 rejections for heart trouble, 260,000 for hernia, 129,900 for tuberculosis, 254,000 for syphilis, 245,000 for nerve injuries such as poliomyelitis, 376,000 for orthopedic disability and amputations, 48,000 for varicose veins, 500,000 for obvious mental and physical defects who were not examined, and 856,000 for neuropsychiatric shortcomings. It must be further realized that these men were under 37 years of age, and that our labor pool includes primarily men of an older age group. This is especially true in the skilled categories. Can different standards be used by industry? What about returning veterans? What about those who were rejected and many others whom medical science has been striving to make useful? What about the older men who have cardiac limitations, hypertension and a geometrically increasing average disability?

It must be emphasized that industry is willing to utilize men with limited physical capabilities or any group of modern society. Furthermore, it is willing to make any practical concessions necessary, but if each employee so hired is a potential $7,000 liability according to present concepts there remains only the alternative of rigid selection for employment.

This is a warning to utilize our physically impaired manpower and at the same time to revise our statutes so that such a state of affairs is not allowed to develop. We as a civilized nation must decide where the responsibility lies and not place it on employers alone who may be unwillingly responsible for more social unrest and suffering than has yet been experienced in management-labor relationships.

This question can only be decided by an intelligent conference of management, labor and the medical profession, the triumvirate concerned. Present statutes must be defined the same way that all problems in this legal field have been since 1880. This has been and must continue to be by statutory revision and not by a mass of conflicting new precedents established according to social whims.

SUMMARY: Social security in its broadest sense implies that an individual should be either gainfully employed or compensated sufficiently to prevent impoverishment. When the unemployment is caused by an occupational injury or illness the responsibility should be the employer's. When it is a result of an ailment or injury common to all individuals and not initiated by employment it should be the responsibility of the society in the form of either compulsory or non-compulsory disability insurance pro-rated among all participants and administered by an organization capable of doing this efficiently.

Reference Source

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2. 2012—Apoplexy occurring during work with no evidence of external force was compensable death according to Kentucky Court of Appeals, Commissioner VarHaht, Dec. 10, 1946.

3. 2026—A derrick operator suffered an apoplectic stroke at home. It was decided to be due to the nature of his work and thus compensable according to California Sup. Court, Judge Carter, Dec. 19, 1946.

4. 2045—Arthritis known to be present in a worker was declared compensable when activated. Louisiana Court of Appeals, Judge McInnis, Nov. 25, 1946.

5. 2052—Evidence supported contention that an operation for hernia suffered by claimant aggravated a pre-existing condition of tuberculosis. N. Y. Sup. Court, per curiam, Sept. 18, 1946.

6. 2058—Death due to apoplexy, after suffering a hot water scald of hands, of worker with history of hypertension. Death was declared to be in part due to scalding and thus compensable. N. Y. Sup. Court, per curiam, Sept. 18, 1946.

2073—Patient suffering from arthritis was disabled after fall; not proved to be related, thus no compensation. New Jersey Sup. Court, Judge Heber, Jan. 7, 1947.

7. 2078—Dormant tuberculosis was reactivated when claimant sustained injuries resulting in fractured ribs. Although claimant left the hospital against medical advice, the case was declared compensable. New Jersey Sup. Court, Judge Wachenfeld, Dec. 30, 1946.

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9. 2178—Death was declared due to fall which aggravated renal calculi and resulted in nephritis, thus was compensable. S. Carolina Sup. Court, Sup. Judge Fishburne, Mar. 3, 1947.

10. 2183—A fall, occurring at time of a coronary occlusion in which neck was broken, was considered not compensable. Mo. Sup. Court, Judge Leedy, Jr., Feb. 10, 1947.

2190—An amputation, following injury to arteriosclerotic extremity, was considered not compensable. St. Louis Court of Appeals, Judge Anderson, Feb. 18, 1947.

11. 2198—A blow on the head activated tuberculosis, causing death. Compensable. Nebraska Sup. Court, Judge Carter, Feb. 21, 1947.

2206—Death from coronary thrombosis, during convalescence from hernia operation, is not compensable. Colorado Sup. Court, Judge Alter, Mar. 17, 1947.

12. 2239—Carcinoma on neck, developing over a year after injury to hip, was declared to be compensable because it was due to injury according to one physician; three differed but commission ruled compensable. S. Carolina Sup. Court, Assoc. Judge Fishburne, Mar. 14, 1947.

13. 2250—Death from heart attack, 10 months after exertion, was declared compensable by N. Carolina Sup. Court, Judge Derin, Apr. 9, 1947.

14. 2258—Death from heart attack in hot working environment was declared compensable. Alabama Sup. Court, Judge Livingston, April 10, 1947.

2238—A worker's job entailed mountain climbing. He suffered a heart attack during work which was declared non-compensable. Utah Sup. Court, Judge Wolfe, May 23, 1947.

15. 2366—A questionable heat stroke, followed by death caused by a brain tumor some months later, was declared compensable. Texas Court of Appeals, Judge Hughes, June 4, 1947.

16. 2381—A twisting injury activated tuberculosis and thus was declared compensable. Oklahoma Sup. Court, per curiam, June 10, 1947.

17. 2388—A wrenched back activated arthritis and was thus compensable. Kentucky Court of Appeals, Judge Siler, June 10, 1947.

18. 2413—Injury to chest, with return to work, was declared cause of coronary occlusion three weeks later and thus compensable. Wyoming Sup. Court, Judge Kimball, July 1, 1947.

19. 2432—Tuberculosis can result from common cold acquired at work and is compensable. Texas Sup. Court, Judge Taylor, July 9, 1947.

20. 2470—Pre-employment physical examination revealed heart trouble. During work suffered indefinite condition manifested by expectoration of blood. Was considered to be aggravation of heart disaese and thus compensable. Penn. Superior Court, Judge Reno, July 17, 1947.

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22. 2497—Accident caused melancholia resulting in suicide which was thus compensable. N. Y. Sup. Court, per curiam, May 16, 1947.

32. 2504—Tool grinder's occupation considered sufficient cause for heart disease development. N. Y. Sup. Court, per curiam, May 14, 1947.

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25. 2532—Fractured ribs resulted in tuberculosis activation and thus case was compensable. Oklahoma Sup. Court, per curiam, Sept. 23, 1947.

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27. 2602—An injury in July was directly related to death in December from heart attack. Texas Court of Civil Appeal, Judge Hall, Oct. 10, 1947.

2621—Arthritis was not related to injury according to Springfield Court of Appeals, Mo., Judge Vandeventer, Nov. 20, 1947.

28. 2634—Three electric motors blew out and thus paralysis of right side in observer was compensable. Mass. Sup. Court, Judge Ronan, Nov. 4, 1947.

29. 8075—Carcinoma of prostate was activated by fall and thus compensable. Michigan Sup. Court, Judge Sharpe, May 16, 1947.

The Challenge of Industrial Medicine

HENRY S. BROWN, M.D.,
Medical Director, Michigan Bell Telephone Company;
President, American Association of Industrial Physicians and Surgeons,
Detroit, Michigan

IN THE town of Carpi in the northerly part of Italy in the year 1633 was born Bernardino Ramazzini, an Italian boy destined to be the first known student of industrial medicine and now recognized as the patron saint of that branch of the healing art.

After many years devoted to study and practice with multitudinous observations of artisans and tradesman, and the ailments peculiar to them and their work, he published a volume entitled "De Morbis Artificium Diatriba," (discussion of the diseases of artisans).

This monumental work written at the age of 58 contained 40 chapters describing in clinical detail characteristic symptoms and suggestions for treatment of industrial or occupational diseases he had observed.

His description of symptoms has been altered little if any, but, of course, his methods of treatment have been improved upon as medical science advanced.

Unfortunately, Ramazzini and his work were soon forgotten and practically nothing was done to develop the art of industrial medicine and surgery until the Workmen's Compensation Act was passed in 1916.

Then manufacturers and employers began to realize that it was time to pay some attention to the health and safety of their employees. Toward this end they began to search for men trained in industrial medical practice and found there were none such.

Prior to this date a few of the larger manufacturers had maintained a small first aid room occasionally presided over by a nurse, but more often by some workman who was able to "lend a hand" with an accident until a physician could be reached.

Insurance carriers and large plants with hazardous occupations soon learned that thousands of dollars as well as untold numbers of eyes, legs and fingers, could be saved by trained industrial surgeons.

As a result practically all large plants—manufacturing, public utility and merchandising, now have well equipped medical departments with men in charge to carry out a complete industrial medical program.

There are, however, an enormous number of small plants of every description without any medical department much less a health program. The reason for this is three-fold:

1. Failure to see the value of such a program.
2. Lack of funds to install it.
3. Inability to find well-trained industrial physicians to take charge.

It is safe to say that there is not a single medical director of a large organization in America today who was trained for his job—they have evolved via the school of experience from general practitioners, general surgeons and internists.

Insurance carriers, the National Association of Manufacturers, and hundreds of large and medium sized plants today are seeking the country over for well-trained industrial medical men; they are not to be found. And these groups, at this stage of modern medicine and manufacturing, are not willing to gamble their money and the lives and limbs of their employees in the hands of men who have yet to learn to do the jobs they may be called upon to do.

THIS constitutes the challenge of industrial medicine today. What is organized medicine going to do about it—or will it do nothing at all but sit idly by and permit the government or the Public Health Service to step in and take over the work the profession should do?

The Association I represent started about 30 years ago from a small group of pioneer industrial men. It has now grown to include nearly 2,000 industrial physicians and surgeons and is committed to three things:

1. Recognition by organized medicine of the specialty of industrial medicine.
2. Establishment of graduate courses in industrial medicine in all American medical schools with comprehensive post-graduate course in industrial medicine (including in-plant training) for medical graduates interested in the specialty.
3. The founding of post-graduate fellowships for graduate physicians who are determined to make industrial medicine their life's work.

One of the first steps in the achievement of this long-range program was the establishment of the American Foundation of Occupational Health by our Association. This Foundation, still in swaddling clothes, was established under the laws of the State of Illinois in June, 1945, and is definitely committed to a five-point program destined eventually to bring about the fruition of the dreams of its founders:

1. Aid in the study and teaching of problems pertaining to the practice of industrial and occupational medicine and surgery, including direct expenditure for such purpose; grants to universities and colleges; establishment of endowments; establishment of scholarship and fellowship funds; and the donation of fellowships and scholarships.

Address given in Montreal, October 2, 1947, before a joint meeting of Industrial Physicians and Surgeons of the Provinces of Quebec and Ontario.

2. Cooperation with industry, business associations, colleges and universities in the development of industrial and occupational medical services and education.

3. Field studies and surveys of industrial and occupational medical services throughout the United States and Canada.

4. Field studies of colleges and universities throughout the United States and Canada in respect of training and industrial and occupational medicine.

5. Consultation services for industry and universities and colleges, pertaining to industrial and occupational medical education and services.

THERE is much pioneering and missionary work to be done to show management the country over the value in dollars and cents of a complete medical program. And to show young medical men that there is a tremendous opportunity in the field of all types of occupational medicine.

The field is enormous—railroads, mines, public utilities, textile industries, chemical industries, iron and steel plants, plants using heavy metals, plants producing all types of dust, plants producing noxious vapors and fumes, plants using various types of toxic and non-toxic degreasing agents, plants requiring repetitive operations, subterranean workers (miners), submarine workers, divers and caisson workers.

No one man can become proficient in all of these fields, but he can certainly pick out one to his liking and become an artist at it.

And when he does, he must be recognized by his fellow medical men as a specialist in his work.

The modern well-trained industrial medical man should be a physician, surgeon, psychiatrist, toxicologist, hygienist, dematologist, engineer, writer and teacher—a very large order for any human being, but he must at least be very proficient in one or two and surround himself by, or have access to, those who can round out the requirements of his job.

Industrial medical departments equipped for foundries, steel plants, mines, etc., must have men particularly well trained as industrial surgeons.

Others, such as those in public utilities, merchandising establishments (department stores) large insurance offices, require more particularly industrial physicians with a good psychosomatic background.

Other types of plants require men particularly well trained in toxicology and chemistry.

The field is all-inclusive, but fundamentally the industrial medical man must like people and be willing to listen to their trials and tribulations as well as treat their physical and surgical ills.

There never was offered to the profession a greater opportunity to exercise its practice of the art of Hippocrates.

FOR my own convenience, I have coined the following definition of industrial medicine, or, as now more commonly called, occupational medicine:

"That branch of the healing art which has to do with the preventive and therapeutic phases of all pathological conditions whether medical, surgical, psychiatric or toxicological occurring to those employed in gainful occupations of any sort."

Taking it in its most comprehensive interpretation, it provides a challenge of gigantic proportions which the profession must accept and to which I am sure it will respond by providing large numbers of men with the required breadth of vision, well trained in this newest specialty of medicine.

Conservative Procedures in the Treatment of Acute Dental Injuries in Industry

LEONARD S. MORVAY, D.D.S., F.I.C.A.,
Newark, New Jersey

THE dentist's responsibility in the treatment of emergency dental injuries is twofold; first and most important, to the employee, and second, to the employer.

It is the writer's opinion, based on 25 years' experience in the field, that the promiscuous removal of injured teeth is the most conspicuous error which requires immediate correction. I refer to those teeth which have been loosened in their sockets even to the extent that their retention for future service may appear most questionable. Unless the operator has had experience with teeth so traumatized, he may come to the conclusion in making his diagnosis that the teeth are beyond salvaging and proceed to remove them, which often requires very little effort.

It is amazing, in some of these cases, what nature will accomplish if only given the chance. The support of a simple splint in the form of interdental wiring or, if necessary, a silver casting (the latter is seldom indicated) immobilizes these so-called hopeless teeth, and within a week or 10 days we find that they have actually tightened in their sockets. More surprising, these "hopeless teeth," which show little or no response on pulp test, when again tested in a few months show a normal reaction.

In extensive dental trauma, where there is fracture of the labial, buccal or both alveolar plates, with even poor teeth alignment, the fragments should be properly placed in normal position by careful digital manipulation. The same immobilization technique may be employed in the case where the teeth alone are malposed. Of course, the patient should be kept on a liquid diet, and any occlusal interference by the natural opposing teeeth or artificial appliance must be immediately relieved, to avoid any stress whatsoever when the injured teeth contact those in opposition.

A procedure often found necessary is to remove an injured tooth that may be in the area of trauma, in order to facilitate the construction of an appliance; the tooth should invariably be "earmarked" as not involved in the trauma. A typical example of such removal is the following:

An employee, with six upper anterior teeth completely dislodged, had but two upper molars remaining on the one side. To expedite the construction of an appliance, the attending dentist immediately removed these two molars. Unintentionally, these two molars were included in the claim. In many states, an employer would be obliged to compensate the employee an additional $200 for the loss of these two teeth plus cost of restoration. In addition, compensation for temporary disability would also be increased, as the removal of these molars might lengthen the period of the employee's absence from work, due to a prolonged healing process.

The crowns of anterior teeth are very often fractured in close proximity to the pulp. In such cases the pulp should be immediately capped, and the crown of the tooth covered with cement inserted in a well trimmed celluloid crown form. These crown forms, when properly inserted, remain for many weeks, with a fair esthetic appearance. This is a practical method of rebuilding, and at the same time gives a satisfactory emergency service.

The loosening of teeth following trauma should not be considered lightly, for they may be manifestations of a jaw fracture; the fractured segments are apt to show good alignment and mislead in making a diagnosis.

It is imperative that adequate roentgenographic views from several angles be taken, and an immediate study of the negatives be made. If a fracture is suspected, and until such a roentgenographic study be concluded, a four-tail bandage may be applied, which serves temporarily while a definite diagnosis is awaited. This emergency treatment is most effective in the average fracture case and is simple in application.

The following type and size of bandage has proved most useful. White flannel material, 3½ feet long and 3½ inches wide, cut lengthwise through the center, leaving at the center an uncut space of at least 6 inches. The 6-inch section of this four-tail bandage is placed beneath the chin; the front tails are tied toward the back of the head, and the back tails toward the front of the head, and then these two ends are tied together.

It is gratifying to note the result following application of this bandage and the relief usually afforded the injured.

If there is any possibility of a skull fracture, no excessive pressure should be placed on the head bandage, as it may cause a blood clot and be fatal. In these cases, bandages should be loosely applied, and no permanent fixation attempted until the attending physician has determined by roentgenographic study whether skull fracture is present or not. A moistened ice pack should be placed in the area of the fracture periodically, i.e., five minutes on and 15 minutes off; this should help to relieve the pain and discomfort, and also reduce the edema.

In the event a jaw fracture occurs, and the

DR. MORVAY is Dental Consultant Rehabilitation Commission, New Jersey State Department of Labor; Attending Dentist, Newark Beth Israel Hospital and Dental Staff, Newark City Hospital, Newark, New Jersey; Director of Dental Staff, Jewish Children's Home, Newark; Consultant, Westinghouse, Worthington Pump, Edison and others. This paper was presented at the Fourth Annual Meeting of the AMERICAN ASSOCIATION OF INDUSTRIAL DENTISTS, Buffalo, 1947.

employee is sent to the hospital or to the office of a fellow practitioner or a physician without examination by the dental surgeon, still the employing industry may expect the latter to arrange a consultation with those in charge of the case. It should be his responsibility to see that the employee is being properly attended and the alignment of fracture is satisfactory. Most hospital executives require a written order from the carrier or employer before permission is granted for consultation or examination of x-rays and charts. Of course, this consultation must be arranged in a most diplomatic way, and only when the attending practitioner is not accustomed to treating jaw fractures. It is most necessary when only a general physician is in charge, since his knowledge of dental articulation may be limited and he may not be aware of the availability of such dental service. By suggestion to those attending the injured, not in the presence of the patient, you may avoid what might result in a permanent disability, unless the jaw is refractured, for which consent is not always given by the injured employee once the jaw has been immobilized and the employee has become ambulatory. An early change in poor alignment in the area of fracture, or the correction of an abnormal articulation may result in the avoidance of permanent disability.

If knitting of a fracture is slow, it is best to determine whether a tooth is in line of fracture or there is a focal infection present which is causing undue delay, thus lengthening the period of temporary disability. Teeth, even though in the line of fracture, should be retained if they are necessary for the immobilization of the fracture unless their retention is delaying recovery. In such instances they may be removed after some sign of calcium formation has become evident provided the local area has not become edematous and removal of the tooth in the line of fracture is not imperative.

The question of damage to artificial dental appliances or their breakage often causes controversy. The compensation act in some states specifically mentions that employers are not responsible for the breakage of artificial appliances. However, some employers do not take advantage of such immunity when employees break their eye glasses, artificial teeth, etc.

Therefore, when a bridge or denture is broken or damaged, all the broken pieces should be preserved, as they can very often be satisfactorily reassembled and efficiently repaired to the gratification of the employee and at a saving of much expense and inconvenience to him or his employer.

Some states permit the reconsideration of compensation claims within the two-year period following settlement, and unless a detailed description covering all teeth and both jaws was included when the original examination was made, there will be no record to show the employee or the employer that the condition existed previous to the original injury. When examining an employee it is therefore essential, that not only the one or two teeth involved in the claim but the condition of each tooth, even those distant to the area of claim, be recorded in detail.

Remember that a dental injury has an entirely different psychological effect on a claimant from any other type of injury, such as trauma to, or loss of, an extremity. If only one tooth is injured, it may result in an honest attempt to introduce in the claim the repair of many of the natural teeth present. So unless one has recorded the condition of each natural tooth present, the industrial dentist may be confronted with a claim which may be most embarrassing to all concerned. Artificial dental appliances must also be recorded and their detailed description noted at the time of injury, for the breaking of a clasp in the ordinary process of mastication some time following a dental injury may be assumed to be a result of the original trauma.

By explaining to an employee that newly introduced dental defects existed previous to the original injury, the dentist acts as a messenger of good will between the employee and industry, as the former will be brought to a realization that his additional claim is unfounded.

Consideration of industrial dental hazards causing abrasion, erosion, and so on, is not poossible at this session due to the time allotted. However, I merely mention that dentists in industry, by periodical examination of each employee, can be of excellent assistance in reducing the occurrence of many dental defects caused by out-moded methods of production, lack of safety engineering, and antiquated equipment.

Industrial Health Program
—For the Medium-Sized Plant—

HENRY H. RUBIN, M.D.
Chicago

A HEALTH program for the medium-sized plant need not and should not depart greatly in its fundamentals from that of the large plant. The need for such a program does not vary with size and certainly the desired end results are the same, namely, reduced operating costs through decrease of absenteeism and turnover, and reduction of man-hour loss by prompt care of illness and injury. The manner of accomplishing these results will vary with the size of the plant and the resources at its disposal.

As a bare minimum such a program must center about an industrial medical department. The functions of such a department are the conservation of health, the treatment of on-the-job illness and injury, and administrative duties.

The industrial medical department should have competent professional personnel. There should be a full-time physician in charge or else a part-time physician. He should be responsible to a principal administrative officer of the organization. The nurse or nurses should be responsible to the physician. Conditions requiring a specialist's care should be referred to the particular consultant and hospital facilities should be provided for the special case. Medical records must be kept, especially because of the medicolegal aspect, and a monthly report from the medical department should be submitted to management.

Medical Services

HEALTH conservation is an important contribution by industry to the public health, and the physical examination is one of the best means for effecting this. The various types of examinations are the pre-placement, periodic or health audit, occupational hazard, sickness absenteeism and special examination. All have for their purpose the determination of physical fitness for the job and the discovery of untoward conditions which can be remedied or controlled. Where defects have been found and care indicated, there should be a follow-up to determine if corrections have been made.

Diagnosis and treatment of injuries or illness resulting from employment is another function of the medical department. The best way to deal with these conditions is to prevent them. This can best be done by education of the employees, making each one responsible for the safety program. First aid instruction to groups of employees may be necessary, especially in the absence of regular medical personnel where emergency care of the minor case is required. The employees should be instructed in administration of artificial respiration in cases where breathing is very irregular and feeble or has ceased, and in the first-aid care of cases of shock and hemorrhage. A supply of oxygen should be kept in the plant dispensary for use in the required case.

Cooperation with Health Agencies

THERE are four services available to aid in the proper conduct of a plant health program through the facilities of existing local and state agencies. These are the chest x-ray survey, industrial hygiene survey, routine blood tests, and dental surveys.

When x-ray facilities are unavailable in the plant, local agencies may be called upon to make chest x-ray surveys. This should be done annually on all employees and is the method of choice in the control of tuberculosis. In this manner, cases of pulmonary tuberculosis are detected in the early stages where proper treatment can be instituted with a more favorable chance of recovery. The occasional chest x-ray may not be effective. It is only by repeated x-ray examinations that the early case may be found.

The routine practice of including blood tests as a part of the pre-placement physical examination will aid in uncovering syphilis. The Public Health Services offer their facilities for these tests in industry. Cases of syphilis should be referred to the employee's physician or the local health service for treatment and the industrial physician should make certain from time to time that employees are receiving proper medical treatment.

The detection and control of occupational exposures is an important element of environmental hygiene. The physician, by discovering scientific hazards, which may affect the worker's health and efficiency, may recommend correction. Here again, the State Health Department, through its division of industrial hygiene, may be called upon for its aid.

Dental health is important in an over-all health program. It is needless to stress the disability that may result from poor oral hygiene and dental decay. Dental surveys which include oral and dental examination as well as x-ray of the teeth are offered by the state health agency. Employees requiring dental care are advised to consult their family dentists.

Health Preservation

OTHER measures for the preservation of health of the worker are health education, good nutrition and sanitation. Health education may be carried on through charts, posters, leaflets and articles in the plant publication. More effective would be lectures to groups or personal interviews of the employee and the plant physician on personal hygiene, physical fitness, communicable diseases, etc.

Presented at the Mid-West Conference on Industrial Relations, Chicago, December 12, 1947.

Nutrition is receiving much emphasis since it is an important factor in health and morale. Food, being a fuel for the human machine, should be adequate in intake and of the proper kind, in order that that machine may function energetically and efficiently. Foods containing adequate amounts of the essential elements should be prepared properly and in variety to promote eye appeal and to stimulate the appetite. Proper handling and storage of foods will prevent spoilage and outbreaks of food poisoning.

Sanitation in the plant, aside from the prevention and control of occupation hazards as discussed previously, should include such items as good housekeeping, personal service conveniences, safety of the water supply, sewage and garbage disposal. Though the plant physician may have the responsibility from the standpoint of hygiene, others may be delegated to apprise him of these conditions.

Industrial psychiatry is a special field and its importance must not be underestimated, but in the case of the smaller or medium-sized plant, the physician needs to practice it since it is interwoven with the rest of his work. Not only in job placement where the emotional demands of the job must be correlated with the emotional make-up of the prospective employee, but also in job adjustment will his advice and supervision be necessary. Absenteeism, inefficiency, or lack of interest in the job may stem from nervous conditions due to domestic or job worries. Interviews between the employee and plant physician may help to alleviate the condition. Consultation with the employee's supervisor regarding job adjustments, rather than protracted sick leaves, especially where disability wages are paid, will go far in effecting mental health. It is inadvisable to tell "nervous" employees to take time off from work because it may turn those with incipient psychoneuroses into chronics, which are much more difficult to treat.

Cost of Programs and Benefits Derived

THE cost of an industrial health program averages about $13.00 per worker per year, varying with the size and the type of the industrial establishment. The benefits derived are improved health of the worker, lessened absenteeism, reduced compensation premiums and improvement in plant morale, which should more than offset the cost of such a program.

Allergic Problems of the Railway Surgeon

SAMUEL M. FEINBERG, M.D.,
Associate Professor of Medicine,
Northwestern University Medical School,
Chicago

IN THIS paper I wish to call attention to the fact that allergic problems are within the sphere of the responsibilities of the railway surgeon. These problems fall mainly into three categories: (1) Allergy in employees, in which the allergy is not related to the employment. (2) Allergy due to the conditions of employment. (3) Allergy relating to passengers and the public.

In discussing this topic I make the following assumptions: (1) That the term "railway surgeon" is a misnomer, the so-called "railway surgeons" being also called upon to perform non-surgical duties. (2) That some railway surgeons are also concerned with medical problems in other industries, and even in private practice. (3) That many also have the responsibility of establishing policies relating to medicine and health of the railway industry as well as the actual care of employees.

Understanding the Principles of Allergy

WITHOUT an understanding of the principles of allergy it would be next to impossible to discuss the specific problems. I am taking for granted that in general you are acquainted with these principles. Nevertheless, it will probably be of help to review them briefly.

The allergic manifestations which constitute major problems are asthma, allergic cough, seasonal hay fever, non-seasonal vasomotor rhinitis, atopic eczema and contact dermatitis. Among other problems one meets are urticaria and angioneurotic edema, headache, gastro-intestinal allergy and bacterial allergy. A constitutional background operates as the most important factor to determine the probability of the occurrence of allergic diseases such as hay fever, asthma and eczema. This predisposition is inherited in a large percentage of the allergic population.

THE specific substances responsible for the allergic reactions are varied and numerous. The most important are the inhaled allergens. The pollen of wind-pollinated plants is the most common single class of inhalant allergens. In general these pollens may be divided into three groups: trees, pollinating in spring; grasses, pollinating in summer; and weeds, pollinating in autumn. However, the problem is not that simple in all parts of the country. For example, in some areas grasses shed pollen for a large part of the year, while in other places the ragweeds may have both a spring and fall season. Fungus spores are next in importance. These spores arise from fungi growing on vegetation, chiefly on grains, and are especially prevalent in the Central States area. Important non-seasonal inhalant substances are house dust, animal danders and air-borne industrial dusts.

Foods are not infrequent causes of allergic manifestations. Among the effects of food allergy are abdominal pain, diarrhea and other gastro-intestinal disturbances, urticaria, eczema, asthma, rhinitis and headache. Drugs may cause allergic symptoms. Among the most common of these and their most frequent effects are: sulfonamides and penicillin, causing serum-sickness types of reactions and contact dermatitis; aspirin and other antipyretics producing asthma and urticaria; barbiturates and other drugs causing rashes and fixed drug eruptions; and sulfonamides, pyramidon and other drugs producing blood changes. Allergic reactions to injected substances occur in the experience of almost every practitioner. Among the substances responsible for such effects are animal serums, penicillin and streptomycin, hormones and vitamins, virus vaccines and arsenicals, mercurials and similar substances.

Dermatitis due to direct contact is caused by such allergens as plants and pollens, paints and varnishes, dyes and metals, and other chemicals. Not to be confused with this type of allergic dermatitis is the contact dermatitis caused by chemical and physical irritants without any allergic factor. Among these may be mentioned acids, alkalis, cement and oils.

It will also be of help to recall that a number of non-specific factors may influence the allergic manifestations. These include mechanical, chemical, thermal, infections and neurogenic influences. For example, a contact dermatitis due to a specific allergen such as metal will be aggravated non-specifically by soap and water. Asthma due to pollen, occupational dust or food, will be aggravated by cold, coal smoke, or exertion.

IN THE diagnosis of allergy the importance of history taking cannot be overstressed. In many instances the care and experience involved in the taking of the history may be the deciding factors in the success or failure of the diagnosis. The complete examination of the patient is as important in allergy as it is in all fields of medicine. Skin tests are indicated as a diagnostic procedure in many allergic manifestations. In atopic diseases such as asthma, hay fever and eczema, scratch or intradermal tests are indicated. Positive reactions are the immediate whealing type of response. In contact dermatitis the diagnostic test is the patch test, which consists of the application of the crude material or

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solution of it to the intact skin for a day or two. A positive reaction consists of a delayed type of eczematous inflammation.

Time does not permit us to discuss the limitations of skin tests in general. It should be mentioned, however, that if one is to do skin tests he should know the technic, the various possibilities that a positive or negative reaction may signify and the application of the positive test to the proper recommendations to the patient. Inexperience in any of these phases results in countless misconceptions and failures.

THE principles of treatment of allergic manifestations are several. Avoidance of exposure to the specific allergen constitutes the most important cardinal principle. Where avoidance is impossible desensitization can be applied, particularly in the case of inhalants. In most instances of industrial dermatitis desensitization is not feasible. Of great, and sometimes utmost, importance is attention to secondary or nonspecific factors. And finally, a sound experience with palliative remedies is necessary in almost all instances.

Non-Occupational Allergy among Employees

SINCE 5 to 10% of the population are allergic it is evident that allergy among employees not due to occupational factors is quite common. The railway surgeon frequently has to deal with this condition. The asthma or the hay fever of the employee may have to be treated because it affects the efficiency of his work. It may be necessary to chnage the person's job from outdoors to indoors or from railway stations to city offices. Allergic ailments must be considered in the preemployment examination, particularly in determining the job classification.

Allergy problems often arise with regard to the use of drugs and serums. One should be familiar with the common reactions to penicillin, for which the antihistaminic drugs constitute the best symptomatic remedy. One should have a sense of awareness that many simple drugs can cause allergic reactions and some, as in the case of aspirin, may be so violent as to end fatally at times. It should be realized that sulfonamides frequently cause severe allergic reactions and that the use of sulfa drugs for trivial ailments may sensitize the patient so that he is unable to tolerate them when the need is desperate. Ointments of penicillin or sulfonamides, or nose drops or sprays of these drugs, should not be used promiscuously for the same reason.

Knowledge of the types of allergic reactions from immune serums and their management and prevention should be on the list of "musts" in the information of the railway surgeon. Ignorance of, or carelessness in, the principle of diagnostic precautions in the administration of serum will almost certainly result on occasion in grievous consequences. Time does not permit us to discuss the details of these and certain other allergy principles, but I would strongly urge that with the help of texts[1] and other sources the railway surgeon make himself thoroughly familiar with the steps involved.

In various positions concerned with railroads, alertness is an essential requisite. We have noted that, in many instances of the use of antihistaminic drugs, such as benadryl, pyribenzamine, thenylene, chlorothen and others for the symptomatic relief of hay fever and other allergies, one of the most common side effects is sleepiness and diminution in alertness. We know of accidents and near accidents which have occurred because of this disturbed sensorium, and it can be readily seen how such effects on the nervous system may be disastrous in certain occupations. I would suggest that when such drugs are used the patient should be observed and that his particular response should be known.

Occupational Allergy

THE specific allergens encountered in the railway industry and other occupations are numerous and varied. We can mention only a few. Among the occupational inhalants causing allergy are flour and grain dust in freight handlers, millers and bakers; upholstery dust in car manufacturers and porters; castor bean, cottonseed, flaxseed and other organic dusts in special industries; and synthetic chemicals, such as chloramine and others, in drug industries. Although not truly occupational, such allergens as pollen and mold spores present a definite problem to the outdoor railway worker and especially to the workers who operate the trains. It is here that the experienced railway surgeon can utilize his knowledge and skill to good advantage by adjusting the job or even its location to the particular person. In the field of contact dermatitis some of the substances that may produce allergy are paints, metals, dyes, varnishes, lacquers and many of the materials which the freight handler encounters.[2] Not to be ignored are poison ivy dermatitis and dermatitis from other plants which the roadworker frequently contacts.

There is a variety of non-specific allergy hazards in railway employment. One of the most important is coal smoke. The smoke of soft coal has an irritating effect on the respiratory tract. In the person who has a nasal allergy or asthma from any specific agent such as pollen, dust or foods and who is symptom-free, the inhalation of coal smoke will almost always incite an acute paroxysm. What can be done to prevent such hazards? In the first place, it is evident that the railway surgeon should recommend that people with respiratory allergy should avoid jobs which expose them intimately to such atmospheres. In the second place, effort can be directed toward the ultimate goal of providing other locomotive power which would minimize these hazards.

The problem of non-specific aggravation of allergic diseases also involves the avoidance of mechanically irritating dust such as road dust, the avoidance of irritating chemical fumes in

shops, protection of the skin from oils and other chemicals, and the use of proper soaps and cleansing materials for the skin.

Allergy Relating to Passengers and Public

THERE are many examples of hazards to the public from the escape of allergic substances from industrial plants. Among these may be mentioned such materials as the dust from linseed, cottonseed and castor beans. Synthetic and other chemicals also fall into this group, and it is possible that there are a number of chemicals in industry whose implications have not yet been recognized. Although the railway industry is not the most culpable in this respect, this problem is still one to be considered there.

From the standpoint of the public I would say that the most prolific source of annoyance among allergic individuals is coal smoke. As far as we know this effect is a non-specific one, but it is not improbable that some day a specific allergen may be discovered in such smoke. Although the large city railway stations and loading platforms are chiefly responsible, the surrounding territory and the passengers on the trains are not free from this hazard. It is common for allergic persons to experience an attack of asthma or a sneezing fit in these environments, particularly in the sheds on the way to boarding trains, when the engines are belching acrid fumes. I venture to say that it is not unlikely that a great deal of the asthma and rhinitis which people experience in the city is due to the coal smoke from the railway industries and, of course, other industries. I believe that the time is not far off when this problem will have to be solved.

CONDITIONS on the trains deserve the consideration of the railway surgeon. Has any thought been given to provide comfort for, or prevent misery to the allergic person while traveling? Thousands of allergic people travel daily. A large proportion of these are allergic to dust and feathers. Among my own patients I have listened to the same story repeatedly. The train ride had elicited the first attack of asthma or the first bout of severe rhinitis the patient had experienced for a long time, chiefly because he had been compelled to discard all precautions concerning dust and feathers. It seems to me that it would be a fairly simple procedure to have on every train two or three sets of mattresses and pillows enclosed in dust-proof casings to furnish to such unfortunate persons.

One could go even further. It would be no great hardship to provide one or two simple modifications of diets to offer to allergic individuals, particularly wheat-, egg- and milk-free diets. Such foods need not be prepared beforehand, but simple standard directions could be made available and supplied to chefs and stewards. The lines which will provide such innovations and make their availability known I am sure would gain deserving publicity thereby.

Recently I had occasion to give emergency aid to a woman who had asthma on the train. It was pure coincidence that I overheard the husband frantically requesting the porter to find a doctor. How much better it would be if it were made known that physicians should register their calling on the train. It is true that most of us when traveling do not wish to engage in medical practice, but it is also true that almost all of us feel that we are duty bound to minister to the sick if no other medical aid is available.

VIRTUALLY millions of allergic persons are hopeful that climatic changes will improve or cure their allergy. Many are misguided because they need no change, many go to the wrong place, and many more have difficulty in deciding whether to make a change. Needless to say this involves a large-scale travel problem and deserves the serious attention of the medical directors of railroads. I am sure that to some extent attention is being given to the advantages of certain localities for some allergic people, but I submit that a more energetic effort to systematize this information and to assist in the research required to obtain it would be helpful to the public as well as to the railway industry. For example, the railway lines might desire to assist such a committee as the Aeroallergen Committee of the American Academy of Allergy, which has as one of its objectives the gathering of data on atmospheric content of pollen and molds in various localities in the country. I understand that the railroads have already helped in a measure by making the National Parks available for such a survey. An extension and amplification of this project would constitute a great public service.

IN SUMMARY, we may conclude that the railway surgeon cannot escape the application of allergic principles to his practice, and that a greater interest and dexterity in this field would open up new avenues of progress in railway medicine.

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Dysmenorrhea

E. TERRILL MONTGOMERY, M.D.,
Hempstead, New York.

ALL INDUSTRIAL concerns employing a large number of women are constantly faced with the problem of lost time—whether spent in a rest room, medical room, or, in severe cases, at home—due to the distressing symptoms of dysmenorrhea. Medical advisers of such organizations are therefore continually searching for a mild medication that will promptly relieve the discomfort of this condition and allow the worker to continue on the job.

In our experience as medical adviser to the Country Life Press and Doubleday & Company, Publishers, we have used a number of antispasmodics and also sedatives with some measure of success. Pennington's report[1] on the use of Octin to relieve smooth muscle spasm of the genitourinary systems, prompted us to include this antispasmodic drug in our therapy. During the past year we have used a combination of Octin, and a valerianate sedative, Bromural.[2] With this combination of drugs we have obtained a greater degree of relief in a larger percentage of employees treated than from previous medication.

Octin is a sympathomimetic drug which relaxes smooth muscle, particularly of the genitourinary tract. According to Jackson[3] it acts directly on the sympathetic fibers of smooth muscle. Octin is not an anodyne and will relieve pain only if it is dependent on smooth muscle spasm. Bromural induces a prompt calming effect of relatively short duration which is desirable to allay apprehension and nervousness so often accompanying menstrual periods.

This report concerns the treatment of 68 consecutive patients suffering from menstrual pain. The patients were all treated with a combination of Octin and Bromural administered orally. The literature suggests that in urgent cases 0.5 to 1 cc. Octin may be injected intramuscularly. Twenty-two of the women were married, 46 were single. The youngest patient was 19 years old and the oldest 45 years old. The average age was 23 years. Pelvic examinations were not done on any of these cases because it is our policy to refer the worker to her family physician if she does not respond to symptomatic treatment.

It is evident that only those suffering severe menstrual pain reported to the nurse for treatment. Thus of the 68 women, 60 complained of severe to very severe uterine cramps, and only eight of moderately severe pain. Each patient upon reporting to the nurse for treatment, received an initial dose of either one-half or one 2-grain tablet of Octin together with a 5-grain tablet of Bromural. A majority of the patients returned to work immediately after receiving the initial medication while a few remained in the rest room for a short period of 30 to 45 minutes. If after a few hours the relief was not entirely adequate or distress has returned in some measure, a second dose was given. Fourteen patients returned for a third tablet after another three hours. In most cases not more than two doses of this combined medication were required. In fact, 19 patients were promptly relieved after only one dose of each of the two drugs. Twenty-three experienced partial relief, sufficient to permit them to return to work, 13 got no relief, and of this group six had to go home. The eight patients with moderately severe distress were greatly or completely relieved by a single tablet each of Octin and Bromural.

Only one patient had untoward symptoms. This girl complained of dizziness after the first tablet of Octin and the medication was discontinued. There was no alleviation of pain in this patient. All the other patients in this series tolerated oral medication well. It is of interest that those who have employed intramuscular administration suggest an injection of an initial test dose of 0.5 cc. to recognize the occasional patient with a labile vasomotor system who may respond to the injection with an elevation of blood pressure.

Four of the employees suffering with menstrual pain also complained of migraine. The effectiveness of Octin in relieving migraine has been indicated by the work of Palmer[4] and MacNeal and Davis.[5] Of the four patients, one was promptly relieved, two had partial relief, while one obtained no benefit. Four others complained of severe headache which may or may not have been due to migraine and which was alleviated together with the dysmenorrhea symptoms.

Treatment and the responsibility for keeping the statistics of these cases were under the direction of MISS ETHEL E. SCHLEDORN, R.N., nurse on duty at Country Life Press.

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	No. of Cases	Headache*	Migraine*	Duration Symptoms	Complete Relief	Partial Relief	Ret'd or Con't Work	No Relief	Sent Home
Severe—very severe	60	4	4	2-24 hrs.	24	23	47	13	6
Moderately severe	8	—	—		8	—	8	—	—

* 4 Concomitant headache all relieved together with other symptoms of dysmenorrhea.
** 4 migraine; 1 completely relieved; 2 partial relief; 1 no relief.

Grain Itch
—A Report of the First Outbreak in the City of Baltimore—

FREDERIC A. GLASS, M.D.,
Baltimore, Maryland

WHILE major outbreaks of grain itch (acarodermatitis urticaroides) have been reported throughout the world since the discovery of the disease and its cause, few have occurred in this country since 1910 when Shamberg and Goldberger[1] reported an epidemic among 123 persons in the Philadelphia area. Reports of mass infections in man occurring outside the United States are constantly appearing in the literature, the most recent extensive epidemic having occurred in Athens in 1942.[2]

Grain itch is believed to have been recognized by Bernadino Ramazzini[3] as early as 1700 if the lousiness with which he considered bakers, millers and corn grinders to be generally troubled was in reality due to Pediculoides ventricosus. The first reported American outbreak which occurred in Massachusetts in 1829 among people sleeping on barley straw beds was attributed to certain grain parasites now known to be hosts of the causative mite. It remained for the Englishman George Newport to discover the parasite, Heteropus or Pediculoides ventricosus, in the nest of a wasp in 1849.[4] Rawles[5] in 1909 was the first American to prove that Pediculoides ventricosus was the cause of grain itch.

THE recent occurrence for the first time in the city of Baltimore of 15 cases of the disease among workers in a broom factory and the successful use of a new Pyrenone insecticide in its control are reported herewith.

During the month of October, 1947, the owners of one of Baltimore's nine broom factories requested aid in the control of an eruption affecting 12 of its 27 employees. Examination of these men revealed all to be suffering from the erythematourticarial and papular eruption the features of which were strikingly similar. The distribution was consistently limited to those areas on the trunk and upper extremities covered by clothing; the eruption was sharply demarcated by the belt line and limited to areas above it. Itching was reported to be intense for the first day or two after onset (exposure) declining in severity as the duration progressed. Inspection of the diffusely distributed lesions revealed pinhead to split-pea sized pinkish to intensely erythematous papules having an urticarial halo and, in many instances, a central vesicle. There were no puncture wounds; nor were any burrows evident.

A survey of the plant was conducted; it consisted of a two-story brick building the first floor of which was devoted to storage or several dozen large bales of broom corn. Hundreds of small gray moths, which were apparently nesting in these bales, were seen flying about in this section. These were suspected to be the Angonnois grain moths (Sitotroga cerealella) that are known to act as hosts to an ecto parasite, Pediculoides ventricosus. When the second floor of the plant was inspected less than a dozen moths were counted in the air. All stages in the process of broom manufacture were observed but there was no predominance of infections in any one department. However, when two mites were observed on the table where an infected worker was grouping broom corn into various lengths, they were secured in wrapping paper and later identified as Pediculoides ventricosus. A previous attempt to recover the mite from siftings of a representative bunch of broom corn failed. The features of these mites were identical to those described in Ormsby's textbook.[6] Thus, the presence of four pairs of legs, the first pair in the female ending in a claw as did the fourth pair in the male, was confirmed. Likewise, the fourth pair of legs in the female was seen to terminate in two nails and a sucker. Since no gravid female mite was recovered, the spherical abdominal swelling of which he speaks was not observed.

The Baltimore City Health Department's Division of Industrial Hygiene, which requested my assistance in this problem, ventured the opinion that the broom corn had become infested in a freight car previously used to transport grain, because no such difficulty had been experienced from shipments brought to the factory by truck. The plant owner entertained a different opinion when he stated that the current stock of broom corn represented the first obtained from Argentina and he felt that the mite and its host were brought in from outside the United States.

The problem was now narrowed down to the treatment of infected employees and disinfection of the plant. Parasiticidal applications containing 7% betanaphthol and 9% sulfur precipitate in benzoinated lard afforded only partial relief of the itching. This may have been due to the facts that the workers failed to disinfect their clothing and were being re-exposed to the mite. Accordingly, the plant owners obtained the help of the Entomological Development Laboratory of the United States Industrial Chemicals Company, and a new insecticide developed by this organization was successfully employed for the first time. It consisted of an emulsion containing 10% piperonyl butoxide and 1% pyrethrins. The concentrated emulsion was diluted at the rate of one gallon plus nine gallons of water and sprayed in coarse droplets on all bales of broom corn as well as on walls and floors. Approximately one gallon of the diluted material was consumed for every 1000 sq. foot of treated surface. "This application provided an invisible residue on the surface which contained about 50 mg. of piperonyl butoxide and 5 mg. of pyrethrins per square

foot of surface"...and..."any mites present would be obliged to walk on a treated surface."[7] Examinations on the day following treatment and on subsequent days failed to reveal any living mites. Employees reported that they had experienced no new bites. Although three additional persons, a health department worker, a spray operator and the plant owner became infected, their eruptions promptly came under control with the successful eradication of all mites.

It was observed that the new spray also destroyed the grain moths.

CONCLUSIONS: (1) An outbreak of grain itch, the first in Baltimore, is reported among 15 workers in a broom factory.

2. The broom corn from which brooms are made is believed to have become infested either by transportation in a freight car previously used to carry grain or by importation from Argentina.

3. Local medicaments are palliative only but complete relief of active cases and prevention of new cases is conditional upon thorough destruction of the mite and its host.

4. The successful use of a new Pyrenone insecticide for the first time against Pediculoides ventricosus and its grain moth host, Sitotroga cerealella, is reported.

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A Study of Fractures of the Lower Extremity
—From the Records of the Workmen's Compensation Board of British Columbia—

CLARENCE A. RYAN, M.D., C.M., F.I.C.S. (assoc.),
Vancouver, B. C.

THIS is a study of fractures of the tibia, tibia and fibula, and femur (exclusive of malleolar and surgical neck), as compiled from the 1943 records of the Workmen's Compensation Board of British Columbia.

As Orthopedic Officer of the Rehabilitation Department of the Compensation Board, I was struck by the number of workmen showing prolonged disabilities in knee or ankle following fractures of the lower extremity. This number seemed disproportionately large when compared with the "run-of-the-mill" cases.

At the time of preparing this paper, the last year for which complete records were available was 1943. In that year there were 68,635 claims, for all types of injury, accepted by the Board. In that number of claims, there should be adequate material. It was decided to limit this study to major fractures of the lower extremity, excluding head and neck fractures of the femur. Malleolar fractures and fractures of the fibula alone, were classed as minor fractures.

In running the cards through the decoding machine all injuries of the lower extremity were picked out. Of the total 68,635 claims, only 429 involved fractures of the lower extremity. In checking these claims, I was surprised to find that 192 claims were for fracture of the fibula alone, 89 involved the malleoli, and 10 were for lesser injuries about the ankle. Therefore, of the 68,635, only 140 claims came within the scope of this study.

In British Columbia our industries are mostly "primary" and largely fall into the "hazardous" class—logging, mining, lumber mills, and (during the war years) shipbuilding. Fishing, while second in importance in industry, produced very few claims.

When we consider the hazardous nature of our industries, the paucity of major injuries is extremely interesting: 35% of the cases in this series, came from the logging industry, 13% from shipbuilding, 9% from mining, and 9% from lumber mills. The remaining 34% came from a variety of employments—construction work, fishing, steel fabrication, bridge building, longshoring, etc.

This study is concerned with results, and the "age-factor" is certainly of major importance. British Columbia is a "young" country and our type of industry called for "young" workers. In 1936 the average age of claimants with the Compensation Board was 36 years. During the succeeding six years, this average age rose to 37 years in 1942. A year later, in 1943, the average age was 38 years, and, in 1944, an increase of another year, brought the average age up to 39 years. This rapid increase in average age in the war years may have been due to the pull of "war wages," bringing many of those who had decided to retire, back into the labor market, and particularly to the labor market on the Pacific Coast (The population of Vancouver, alone, increased 90,000 during the war years.) There is also the gradual increase in age from 1936 to 1942 to be considered. This may mean that, as the Province grows older, the working average age also is increasing.

This increase in "average age" is more clearly demonstrated in the "over-50" group. In 1939, there was an average of 218 claims in each of the age years from 50 to 55, with 18 claims made in the "60 ears plus" group. In 1942, the 50 to 55 years average rose to 244, and the over-60 years to 79 claims. By 1943 the averages were 291 and 131 respectively, and in 1944 there were an average of 543 claims for each year between 50 and 55, and, in the "over-60 years," 151 claims. Note these last figures: the number of workers in the age group 50 to 55 years making claims for injuries had multiplied two and a half times over the same age group in 1939. More startling is the figure in the age group bordering upon retirement age. The "over-60" group had increased nine and a half times (18 in 1939, 151 in 1944).

In the cases considered in this report, the largest group (30%) was found between 20 and 30 years of age. The 30 to 40 years accounted for 26%, the 40 to 50 years for 19%, and the over-50 group for 11%.

The results noted in this study are based entirely on "time-loss." That means the total number of weeks, dating from the day of injury, during which the workman was incapacitated from carrying on his occupation. To some, this period of "time-loss" may seem unduly prolonged. I have stated earlier that 35% of the cases considered were the result of logging accidents. The man in the woods must be able to scramble over fallen trees or jump out of the way of a falling tree. If he happens to be a "high-rigger" he must be able to climb, and hold himself with "spikes" and belt high up in the tree while he cuts off the upper 20 to 30 feet. These men, in the woods, must have practically 100% function in their limbs.

In 1947 the Compensation Board of British Columbia established its own x-ray department and since that time all ambulant cases from the Vancouver area have been x-rayed in that department. Where the original x-rays were taken in a hospital or in an outlying center, the films have been brought to Vancouver and photographic copies made. Previous to 1947 no systematic attempt was made to include copies of the

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x-rays in the workmen's file. Therefore no attempt could be undertaken, in this study, to determine the actual "healing time." Perkins, in his book published by Oxford University Press, (London) 1940, gives the following table:

Spiral or oblique	to bridge the medulla	to bridge the cortex
	six weeks	twelve weeks
transverse	twelve ..	twenty-four..

While it is essential to know the "healing-time" in the treatment of these fractures, the important thing, in the end-result, is "time-loss."

THE average time-loss in the group considered in this study was 28 weeks. In the workmen "under 20 years of age" the time-loss was 19 weeks. In the years betweeen 20 and 30, time-loss increased to 28 weeks (the over-all average), and in the older age groups there was a further increase to 33.5 weeks. In the absence of any definite information on "healing-time," the inference is that, in the younger age group, any limitation in function in ankle or knee is more rapidly overcome than in the older age groups.

In British Columbia, 60% of the population is congregated in the southwest corner of the Province. While the workmen are scattered throughout the Province, the larger percentage is employed in the coastal area, and many maintain their homes in Vancouver. The majority, therefore, when injured tend to flock to Vancouver. Moreover all of the orthopedic surgeons are located in Vancouver, with the result that the more serious injuries and difficult fractures are brought to Vancouver. This leads up to a comparison in time-loss between the urban centers and the rural areas. The urban center time-loss averaged 35 weeks. The rural areas had an average time-loss of 27 weeks.

Before condemning our urban surgeons, a further factor should be considered. The climate of our coastal area is considerably damper than our inland, more rural, areas, with a correspondingly lower ultra-violet factor. There is little doubt that the amount of available ultra-violet has a direct effect on the rate of healing of fractures. There is also some evidence that fractures do heal more rapidly in the interior of the Province than at the coast. This more rapid healing permits of a shorter period of immobilization and, therefore, less tendency to limitation in joint function.

Since this study was made from Province-wide reports, it was impossible to sub-classify these fractures with any degree of exactness. It would appear, however, that time-loss was lower in the distal fractures of both tibia and femur, increasing by 10 weeks when the upper third was involved. In those cases which could be classified, the spiral, non-comminuted fractures showed an average time-loss of 17 weeks, the comminuted fractures required three times as long (50.5 weeks) and the compound fractures averaged a time-loss of 69 weeks. Transverse fractures were too few in number to warrant any conclusion.

Because the location and type of fractures were difficult to establish from the records, nothing helpful can be said on the various methods of reduction. Pin fixation had a relatively high time-loss, but this may have been coincident with the type and location of the fractures. Where the fractures permitted reduction and plaster cast support without other forms of fixation, the time-loss was 26 weeks.

The foregoing figures have been based on fractures of the tibia, or tibia and fibula. There were only 28 fractures of the femur noted in the 1943 files. This number is too small to draw other than general conclusions. The over-all average time-loss was 42 weeks. The greatest time-loss was in fractures of the upper third of the femur (exclusive of head and neck), averaging 56 weeks, and, as stated earlier, the distal third fracture time-loss was much less—averaging 34 weeks. Where pin fixation was used the average time-loss again rose to 54 weeks.

IN 1942 the Compensation Board of British Columbia set up its own Rehabilitation and Physiotherapy Clinic with the idea of obtaining closer control of the patients and, by providing more adequate treatment, shortening the time-loss period. Today, the Board has a large staff of physiotherapists and remedial exercise men, under the direction of a medical staff, and a well equipped carpenter shop and occupational therapy department. I had hoped to be able to demonstrate the value of this physical medicine department and, to that end, had as many of the 1945 files as were completed set aside. Unfortunately only 25 such files concerned cases within the scope of this paper.

Of these 25, five were fractures of the femur, with an average time-loss of 30 weeks, 13 were fractures of the tibia and fibula, with a time-loss of 26 weeks, and seven were fractures of the tibia alone, with a time-loss of 19 weeks. The over-all average time-loss in these few cases was 25 weeks.

It would appear from this that there had been a definite reduction in time-loss in 1945 as compared to 1943. Whether the whole year would show the same proportion remains to be determined. Part of this decreased time-loss may be accounted for by a better understanding of physiotherapy and rehabilitation. In 1945 the injured workmen were being sent to the Physiotherapy and Rehabilitation Clinic an average of 10 weeks earlier than in 1943.

The aim of all treatment, of course, is to obtain as near perfection as is possible. The Compensation Board takes the same attitude, but the Board goes further than that. If the workman is left with any residual disability whatsoever, he is compensated for that disability.

In the present series 75% of these workmen were considered to have recovered completely and without any disability.

In the case of the lower extremity disability is expressed as a percentage of loss of function at the hip or knee. Ankle limitation, for instance, would be expressed as a percentage of loss of function "below the knee." In the 25% in the present series, who had some disability, the average disability was 21% "loss of function at the knee." Since fractures of the proximal end of the femur were not included there was no limitation in hip function.

SUMMARY: This is a study of 165 cases of fractures of the tibia, tibia and fibula, and shaft of the femur occurring in industry in British Columbia.

The series is too small to draw any comparisons on type of treatment, nor was it possible to show comparative tables for types and location of these fractures.

The difference between the accepted "healing-time" of fractures, and the actual time lost from work has been referred to.

"Time-loss" is the major factor, not "healing-time."

INDUSTRIAL CONFERENCE ON ALCOHOLISM

Morrison Hotel, Chicago
Tuesday, March 23, 1948

Morning Session

THE PROBLEM of Alcoholism—DR. ANTON J. CARLSON, presiding:

"Exploring the Problem"—A discussion by the president of a large company, his industrial physician and personnel director.

"Alcoholism and Alcohol Addiction" (definition and description)—DAVID SLIGHT, M.D., Superintendent, Veterans' Rehabilitation Center, Illinois Department of Public Welfare.

"The Psychiatrist Looks at the Causes of Alcoholism"—ROBERT V. SELIGER, M.D., Fellow of the American Psychiatric Assn.; of Johns Hopkins Medical School; Director, Neuropsychiatric Institute of Baltimore.

"The Alcoholic Employee"—G. H. GEHRMANN, M.D., Medical Director, E. I. Du Pont de Nemours Co., Wilmington, Delaware.

Discussion—DR. ANTON J. CARLSON.

Luncheon Session

JAMES H. OUGHTON, JR., presiding:

"Cost and Remedy of the Alcoholic Hangover in Industry"—JOHN L. NORRIS, M.D., Medical Department, Eastman Kodak Company, Rochester, New York.

Afternoon Session

ALLEVIATION and Prevention of Alcoholism—JAMES H. OUGHTEN, JR., presiding:

"Conclusions from Fifty Years' Experience in Treatment of Alcoholics"—ROBERT E. MAUPIN, M.D., The Keeley Institute, Dwight, Illinois.

"The Fellowship of Alcoholics Anonymous"—Anonymous.

"A Review of Treatment Methods, Past and Present"—E. M. JELLINEK, SC.D., Research Associate, Applied Psychology, Yale University.

OPEN Forum:
Action in Industry on Alcoholism:

Consultants: DR. ANDREW C. IVY, Vice-President, University of Illinois, Chairman; BRUCE ASHBY, Oscar Mayer & Co.; MYRNA BORDELON, Secretary, CIO Community Services Committee; DAVID B. ROTMAN, M.D., Chief Psychiatrist, Municipal Court of Chicago; PERCY SHOSTAC, Executive Director, Chicago Industrial Health Plan.

ASSOCIATION NEWS

PROGRAM of the BOSTON CONVENTION

MARCH 28-APRIL 4, 1948

March 27 - March 30: AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS.
March 30 - April 2: AMERICAN ASSOCIATION OF INDUSTRIAL PHYSICIANS AND SURGEONS.
March 30 - April 1: AMERICAN INDUSTRIAL HYGIENE ASSOCIATION.
March 31 - April 1: AMERICAN ASSOCIATION OF INDUSTRIAL DENTISTS.
March 31 - April 4: AMERICAN ASSOCIATION OF INDUSTRIAL NURSES, INC.

American Conference of Governmental Industrial Hygienists
—Boston, Mass., Hotel Statler
March 27, 28, 29, 30, 1948—

PRELIMINARY Program: Saturday and Sunday, March 27 and 28—Round table discussions for all industrial hygiene professions.

Monday, March 29

MORNING Session, 9:30 A.M.: "Beryllium Health Hazards"—DR. JOSEPH SHILEN, MR. J. G. MELLOR, JR., and DR. A. E. GALLOWAY, Bureau of Industrial Hygiene, Pennsylvania.

"Appraisal of Present Day Field Instruments"—MR. A. N. SETTERLIND, Division of Industrial Hygiene, Illinois.

"Brucellosis in Industry"—DR. CARL F. JORDAN, State Dept. of Health, Iowa.

AFTERNOON Session, 2:00 P.M.: "Program of Atomic Energy Commission for the Distribution and Safe Use of Radioactive Isotopes." (Speaker to be announced.)

"Selection and Use of Radiation Monitoring Instruments"—DR. DUNCAN A. HOLADAY, U.S.P.H.S.

"Auditory Trauma from Excessive Noise"—DR. NORTON CANFIELD, Yale Medical School.

"Medical Aspects of Maximum Allowable Concentrations: Benzene"—DR. H. L. HARDY and DR. H. B. ELKINS, Division of Occupational Hygiene, Massachusetts.

Tuesday, March 30

MORNING Session, 9:30 A.M.: Committee Reports: Recruitment and Training of Industrial Hygiene Personnel—DR. L. M. FARNER, Chairman.

Industrial Ventilation—MR. W. B. HARRIS, Chairman.

Professional Qualifications of Industrial Hygiene Personnel—MR. R. T. PAGE, Chairman.

Standardization of Air Sampling Instruments—MR. A. N. SETTERLAND, Chairman.

Industrial Hygiene Codes—MR. C. D. YAFFEE, Chairman.

Appraisal and Reporting of Industrial Hygiene Activities—MISS V. M. TRASKO, Chairman.

Standard Methods—DR. F. H. GOLDMAN, Chairman.

Threshold Limits—DR. L. T. FAIRHALL, Chairman.

Standardization of Plant Records and Reports—DR. L. M. PETRIE, Chairman.

Worker Health Information—MRS. CATHERINE BEAUCHAMP, Chairman.

American Industrial Hygiene Association
—Boston, Mass., Hotel Statler
March 30, 31, April 1, 2, 1948—

Tuesday Afternoon, March 30

RADIATION Hazards in Industry: "Radiation Hazards in Industry—C. R. WILLIAMS, Boston.

"Basic Concepts in Nuclear Physics"—R. D. EVANS, Cambridge.

"The Measurement of Radioactivity"—J. W. HEALY, Richland, Washington.

"Control of Radiation Hazards"—K. Z. MORGAN, Oak Ridge, Tennessee.

Wednesday Morning, March 31—Joint Session

THE Physiological and Pathological Effects of Heat, with Prophylactic and Therapeutic Measures:

1. E. F. ADOLPH, Rochester, N. Y.
2. T. F. HATCH, Pittsburgh, Penna.
3. A. V. BOCK, Cambridge, Mass.

Wednesday Afternoon, March 31

INDUSTRIAL Toxicology: "On the Theory and Pathology of Carbon Disulfide Poisoning"—H. BRIEGER, Philadelphia.

"Toxicity in Industrial Use of Dimethylchloroethylamine and Diethylchloroethylamine"—R. M. WATROUS, et al., Chicago.

"The Toxicity of Mono and Dimethyl Ethers of Hydroquinone"—H. C. HODGE and ELLIOTT MAYNARD, Rochester, N. Y.

"Toxicological Studies on Silicones"—V. K. ROWE, H. C. SPENCER, and S. L. BASS; Midland, Mich.

"The Physiological Response of Animals to Respiratory Exposure to Diisopropylamine"—F. F. HEYROTH, J. TREON, et al, Cincinnati, Ohio.

Wednesday Evening, March 31

ROUND TABLE Conferences: 1. Toxicology—Chairman, D. D. IRISH, Midland, Mich.

2. Engineering—Chairman, W. N. WITHERIDGE, Detroit.

3. Analytical—Chairman, W. G. FREDERICK, Detroit.

Thursday Morning, April 1

STUDIES on Aerosols"—DAUTREBANDE, et al, Bethesda, Md.

"The Fume Exposure in the Manufacture of Alumina Abrasives from Bauxite"—JEPHCOTT, JOHNSTON, and FINLAY, Toronto, Canada.

The Cummings Memorial Lecture: "Forty Years in the Poisonous Trades"—ALICE HAMILTON, Hadlyme, Conn.

Thursday Afternoon, April 1

"HEALTH Hazards in Railroad Tunnels"—G. B. TAYLOR, Berkeley, Calif.

"The Case for Maximum Allowable Concentrations"—H. B. ELKINS, Boston.

"Environmental Studies in Plants Using Beryllium"—M. EISENBUD, New York City.

"Urinary Fluoride Excretion and Roentgenologic Changes in Workmen in the Manufacture of Inorganic Fluorides"—F. F. HEYROTH, E. J. LARGENT, et al, Cincinnati.

"Further Observations on the Metabolism of Fluorides at Elevated Levels of Intake"—F. F. HEYROTH, E. J. LARGENT, et al, Cincinnati.

"Observations on the Seasonal and Regional Variations of Certain Contaminants in the Atmosphere of an American City"—J. CHOLAK, Cincinnati.

"Mercurial Nephrosis in Industry"—L. M. D'ESOPO, I. R. TABERSHAW, M. EISENBUD, New York City.

"Toxicology of Materials Used in the Rubber and Plastics Industry"—F. S. MALLETTE, Akron.

American Association of Industrial Physicians and Surgeons —Boston, Mass., Hotel Statler March 30, 31, April 1, 2, 1948—

Tuesday, March 30—Morning Session

MEDICAL—Surgical Clinic. Amphitheatre, Massachusetts General Hospital, Fruit Street, Boston.

Presiding: HENRY C. MARBLE, M.D., F.A.C.S., Consulting Surgeon, Massachusetts General Hospital.

"Recent Studies in Beryllium"—DR. JOSEPH C. AUB, Professor of Experimental Medicine, Harvard Univ., and Associates.

"The Surgery of Trauma"—DR. EDWIN F. CAVE, Chief of Fracture Service; DR. CHARLES BURBANK, Assistant in Surgery, and Associates.

Tuesday, March 30—Afternoon Session

MEDICAL—Surgical Clinic. Cheever Amphitheatre, Dowling Building, Boston City Hospital.

Presiding: JOSEPH H. SHORTELL, M.D., F.A.C.S.

"Shoulder Injuries"—DR. JOSEPH H. SHORTELL, Surgeon in Chief, Orthopedic Service, Boston City Hospital.

"Infections of the Hand"—DR. WILLIAM F. FLYNN, Asst. Visiting Surgeon, Boston City Hospital.

"Industrial Problem in Diabetes Mellitus—DR. ALBERT A. KORNER, Physician in Chief, New England Baptist Hospital.

"Double Plating of Long Bones, End Results"—DR. JOHN L. ADAMS, Clinical Professor of Orthopedics, Tufts College Medical School.

Wednesday, March 31—Morning Session

COMBINED Meeting, AMERICAN INDUSTRIAL HYGIENE ASSOCIATION and AMERICAN ASSOCIATION OF INDUSTRIAL PHYSICIANS AND SURGEONS.

Presiding: HAROLD A. VONACHEN, M.D., General Chairman on the Convention.

Invocation:

Address of Welcome:

Introduction of Presidents of Convention Participating Groups:

1. DR. LOUIS W. SPOLYAR—American Conference of Governmental Industrial Hygienists.
2. THEODORE F. HATCH—American Industrial Hygiene Association.
3. DR. JAMES M. DUNNING—American Association of Industrial Dentists.
4. MRS. MARY DELEHANTY, R.N.—American Association of Industrial Nurses.
5. HENRY S. BROWN, M.D.—American Association of Industrial Physicians and Surgeons.

Papers on The Subject of Heat—American Industrial Hygiene Association:

DR. E. F. ADOLPH, Rochester, N. Y.

THEODORE F. HATCH, Pittsburg, Pa.

Medical Discussion of above papers—ARLIE V. BOCK, M.D., Professor of Hygiene, Harvard University.

"The Public Health Aspect of Dentistry in Industry"—DR. JAMES M. DUNNING, Dean, Harvard University School of Dental Medicine.

Wednesday, March 31—Afternoon Session

CHAIRMAN, DR. HENRY C. MARBLE, Surgical Director, American Mutual Life Insurance Company.

"Alcoholism in Industry"—SELDEN D. BACON, PH.D., Associate Professor of Sociology, Yale University.

"The Management of Burns"—OLIVER COPE, M.D., Asst. Professor of Surgery, Harvard University. FRANCIS D. MOORE, M.D., Visiting Surgeon, Massachusetts General Hospital.

Seminar in Physical Medicine—ARTHUR L. WATKINS, M.D., Director, Dept. of Physical Medicine, M.G.H.; GEORGE G. DEAVER, M.D., Asst. Professor of Physical Medicine, New York University.

Thursday, April 1—Morning Session

"NEW ENGLAND Calling"—A motion picture. "The Skin—The Fragile Element in Industrial Production"—GEORGE E. MORRIS, M.D., Instructor in Dermatology, Tufts College Medical School.

"The Role of Chemotherapy and Antibiotics"—CHESTER S. KEEFER, M.D., Professor of Medicine, Boston University Medical School.

"Coronary and other Heart Disease"—HOWARD B. SPRAGUE, M.D., President New England Heart Association; Associate Physician, Massachusetts General Hospital.

Thursday, April 1—Afternoon Session

"THE Management of Peptic Ulcer"—CHESTER M. JONES, M.D., Clinical Professor of Medicine, Harvard University.

Seminar on Back Pain—Lahey Clinic:

"X-ray in Diagnosis"—HUGH F. HARE, M.D.

"Orthopedic and Arthritic Aspects"—G. EDMUND HAGGART, M.D.

"Neuro-Surgical Aspects"—JAMES L. POPPEN, M.D.

Annual Meeting of the American Association of Industrial Physicians and Surgeons.

Thursday, April 1—Evening Session

ANNUAL Banquet, AMERICAN ASSOCIATION OF INDUSTRIAL PHYSICIANS AND SURGEONS and Participating Groups.

Chairman, HENRY S. BROWN, M.D., President.

7:00 P.M.—Invocation. Dinner.

Presentation of KNUDSEN AWARD.

Address: "The Problems and Advances in Medicine and Surgery"—FRANK H. LAHEY, M.D., F.A.C.S., Honorary Fellow, Royal College Surgeons, Director of Lahey Clinic, Boston.

Friday, April 2

JOINT MEETING of American Association of Industrial Physicians and Surgeons and American Association of Industrial Nurses. Industrial Health Forum Panel.

DR. WARREN PAYNE, Medical Director Ohio Rubber Co., Willoughby, Ohio.

DR. HAROLD A. VONACHEN, Medical Director Caterpillar Tractor Co., Peoria, Illinois.

ELOISE ZURSTADT, R.N., Briggs Indiana Corp., Evansville, Ind.

ROBERT CLAIR, Director Safety Education, Liberty Mutual Insurance Co., Boston, and others to be announced.

American Association of Industrial Nurses

—Boston, Mass., Hotel Statler March 31, April 1, 2, 3, 4, 1948—

Wednesday, March 31

MEETING of A.A.I.N. Executive Board. Presiding —MARY E. DELEHANTY, R.N., President, American Association of Industrial Nurses, Inc., Equitable Life Assurance Society, New York.

Thursday, April 1

MEETING of Industrial Nursing Consultants. Presiding—MARY E. DELEHANTY, R.N., President A.A.I.N., Equitable Life Assurance Society, New York.

Topic—(To be announced).

Discussion Leader—MARY E. INGOLDSBY, R.N., Consultant West Virginia State Div. Industrial Hygiene, Charleston, West Virginia.

Speakers:

(1) GLADYS A. JAHNCKE, R.N., Industrial Advisory Nurse, State Department of Health, Div. of Preventive Medical Services, Seattle, Washington.

"Graduate Nurse Program of Study for Industrial Nurse Students."

(2) CATHERINE R. DEMPSEY, R.N., Supervising Nurse, Simplex Wire & Cable Company, Cambridge, Massachusetts.

"Report on Workshop—Boston College."

NEW ENGLAND Industrial Nurses Association Luncheon Meeting.

Presiding, MARGARET GLENNON, R.N., President N.E.I.N.A., H. K. Porter, Inc., Sommerville, Massachusetts.

Invocation, REV. CHARLES DEWEY, St. John's Rectory, Quincy, Massachusetts.

Toastmaster, FRANK FOY, Executive, Foy's Stores, Quincy, Massachusetts.

Speaker, DR. MIRIAM K. VAN WATERS, Superintendent Massachusetts Reformatory for Women, Framingham, Massachusetts.

Subject—(To be announced.)

Benediction, REV. VICTOR V. SAWYER, Wollaston Methodist Church, Wollaston, Massochusetts.

Thursday Afternoon, April 1

MEETING of Local Group Leaders, Hotel Statler, Boston.

Presiding—MARGARET LUCAL, R.N., Supervising Nurse, Ohio Rubber Company, Willoughby, Ohio.

Topic—Regional Conference Organization.

Discussion Leader—(To be announced.)

Participants—(To be announced.)

Committee Meetings:

Professional Standards Committee—F. RUTH KAHL, R.N., Chairman U. S. Public Health Service, Bethesda, Maryland.

Committee on Education—MARGARET SINNOTT, R.N., Chairman Metropolitan Life Insurance Company, New York.

A.A.I.N. Editorial Committee—KATHERINE MINOGUE, Chairman BMT Line, New York.

Membership Committee—KATHLEEN DUFFY, Chairman American Mfg. Co., Brooklyn, N. Y.

4:30 P.M.—American Mutual Liability Insurance Company invites A.A.I.N. members to be guests at Tea at The American Mutual Building, 209 Columbus Avenue, Boston, Massachusetts.

7:00 P.M.—Banquet of American Association of Industrial Physicians and Surgeons.

Friday Morning, April 2

JOINT MEETING of the American Association of Industrial Physicians and Surgeons, and American Association of Industrial Nurses.

Industrial Health Forum

PRESIDING—MARY E. DELEHANTY, R.N., President A.A.I.N. Equitable Life Assurance Society, New York.

Discussion Leader—MARY A. MAHER, Dean, Boston College School of Nursing, Boston.

Panel—DR. WARREN PAYNE, Medical Director, Ohio Rubber Company, Willoughby, Ohio.

DR. HAROLD A. VONACHEN, Medical Director Caterpillar Tractor Company, Peoria, Illinois.

ELOISE ZURSTADT, R.N., Briggs Indiana Corp., Evansville, Indiana.

ROBERT CLAIR, Director Safety Education, Liberty Mutual Insurance Company, Boston.

(To be announced) Nurse

(To be announced) Management

(To be announced) Medical Jurisprudence

The above panel represents both small and large industry covering the medical, nursing, management, safety and legal aspects.

Friday Afternoon, April 2

GENERAL Meeting:

Presiding—MARY E. DELEHANTY, R.N., President of A.A.I.N. Equitable Life Assurance Society, New York.

Topic I—"Industrial Nurses' Section of the A.N.A."

Moderator—DR. MASON HAIRE, Industrial Relations Section Massachusetts Institute of Technology, Cambridge.

Speakers—In Favor of A.N.A. Section—MILDRED J. MOORE, R.N., Industrial Nursing Consultant, Dept. of Public Health, Chicago.

Opposed to the A.N.A. Section—ELLA G. CASEY, R.N., McCrory Stores Corp., New York.

Topic II—Committee on Structure of the National Nursing Organizations.

Speaker—(To be announced).

Discussion Leader—ETHEL C. BURGESON, R.N., Supervising Nurse, Sears, Roebuck and Co., Chicago, Illinois.

4:45 P.M.—New England Telephone & Telegraph Company, through DR. DANIEL LYNCH, Medical Director, and Nursing Staff invites A.A.I.N. members to be guests at Tea, in Medical Dept., New England Telephone & Telegraph Company, 245 State Street, Boston.

Friday Evening, April 2

BANQUET—American Association of Industrial Nurses, Inc.

Presiding—MARY E. DELEHANTY, R.N., President A.A.I.N. Equitable Life Assurance Society, New York.

Invocation—REV. ANTHONY CARROLL, S.J., Regent of Boston College of Nursing, Boston.

Toastmaster—(To be announced.)

Speaker—MR. J. E. NIEDERHAUSER, Manager of Industrial Relations, Continental Can Co., Inc., New York, "Opportunity For Leadership For Nurses in Industry."

Saturday, April 3

GENERAL Business Session. A.A.I.N. members only—cards to be presented.

Presiding—MARY E. DELEHANTY, R.N., President A.A.I.N. Equitable Life Assurnace Society, New York.

2:30 P.M.—A.A.I.N. members and friends invited as guests of Standard Oil Co., New Jersey, to visit the new modern Employee Building at Everett Plant. "Seeing New England" a short film will be shown.

9:00-11:00 P.M.—Boston Branch Industrial Nurses invite all A.A.I.N. members and friends to "Open House" at Copley Plaza Hotel, Boston.

Sunday, April 4

BREAKFAST Meeting—Guests of Liberty Mutual Insurance Company, Boston.

Presiding—MARY E. DELEHANTY, R.N., President A.A.I.N. Equitable Life Assurance Society.

Invocation—REV. JAMES H. BURNS, Chaplain Massachusetts General Hospital, Boston.

Greetings—MR. STANLEY J. DeVEAU, Manager Claims Service, Liberty Mutual Insurance Company.

Speaker—DR. ALICE BROADHURST, Professional Consultant on Medical Education for the Liberty Mutual Insurance Company, Boston. "Individual Counseling."

SPECIAL PROGRAM

WEDNESDAY Evening, Hotel Statler:

"The Psychiatrist in Industry"—A. WARREN STEARNS, M.D., Professor of Sociology, Tufts College; Former Dean and Professor of Neurology, Tufts College Medical School.

"How Can Medicine Best Serve the Worker in Industry"—MR. BRUCE BLACK, President, Liberty Mutual Liability Insurance Company; MR. CHARLES E. HODGES, President, American Mutual Liability Insurance Company.

Question Period.

A Series of Practical Demonstrations in Hypnotism—MR. THEODORE MARTIN.

WESTERN ASSOCIATION OF INDUSTRIAL PHYSICIANS AND SURGEONS

—Seventh Annual Meeting—

San Francisco, California, Saturday, April 10, 1948

PROGRAM:

President's Address—DR. WILLIAM P. SHEPARD, Third Vice-President, Metropolitan Life Insurance Company, San Francisco, California.

"Industrial Hygiene and Medicine, Tomorrow Measured by Today"—DR. RICHARD C. WALMER, Medical Director, Industrial Hygiene Foundation.

"The Contribution of the Sciences to Industrial Medicine and Hygiene"—DR. FRANCIS R. HOLDEN, Research Associate, Radiation Laboratory, U. S. Navy, San Francisco, California, formerly Chief Chemist, Industrial Hygiene Foundation.

Discussion period for previous three papers.

"Problems Relative to Possible Physiological Effects Caused by Radiation"—DR. FRED A. BRYAN, associated with the Atomic Energy Project, University of California at Los Angeles, formerly active in the Medical Division of the Manhattan Project. (Accompanied by new sound color film, "Operation Crossroads—Radiological Safety Section.")

"The Doctor's Office in Accident Prevention"—H. K. LAMBIE, El Cerritto, California, Safety Consultant.

"Industrial Nursing Today: Evaluation" — MRS. ROBERTA McMAHON, R.N., Eitel-McCullough Company, San Bruno, California.

Symposium—A panel with audience participation discussing the State Compensation Insurance Law, its administration, procedures, and connected problems.

INDUSTRIAL MEDICINE

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Editor: C. O. SAPPINGTON, M.D., DR. P.H.

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Volume 17 MARCH 1948 *Number 3*

The Problem of Alcoholism — A Different Approach

THE Industrial Conference on Alcoholism to be held at the Morrison Hotel, Chicago, on Tuesday, March 23 (program on page 99), has several distinctions. It is announced as the first organized recognition of the problem from the standpoint of industry, and it seems to be the first seriously organized approach to the problem from other than a moral or religious direction. The emphasis is on the *medical* definition of alcoholism, and the medical and psychiatric treatment of it. The intent is a forthright discussion; the titles of DR. GEHRMANN'S paper, "The Alcoholic Employee," and DR. NORRIS', "Cost and Remedy of the Alcoholic Hangover in Industry," indicate that there won't be much pulling of punches. The problem has become sufficiently important, particularly in connection with such things as absenteeism and accidents, to need thorough clinical study—not only in industry but also as a community proposition. A current press headline, for example, asks how many lost weekends are to be found in the metropolitan lockups. Industrial medical departments, to say nothing of the production lines, have long been restless under their effects. Apropos of the clinical rather than the moral approach, Mark Twain once said, "How I do hate those enemies of the human race who go around enslaving God's free people with *pledges*—to quit drinking instead of to quit wanting to drink."

"Who's Who in Industrial Medicine"

WE SEND out our "Who's Who in Industrial Medicine (1948-50)" with pride in the fact that it is *almost* the complete biographical picture of industrial medicine in the United States, but also with regret that it couldn't be the whole 100%. There is the realization, however, that the latter is well-nigh impossible. The field of industrial medicine is developing so rapidly that it can't be measured today without the certainty that it will be different tomorrow. Changes and new appointments are being made constantly. And in such a field and with such a book many can occur in the time interval between closing the forms for the printer and getting final copies from the binder. In this final stage of this book, many did occur, as the interval was necessarily considerable and there was the added difficulty that production was done under the disturbed conditions lately prevalent in the printing industry. But our "Who's Who" is, nevertheless, far and away the best of its kind —not because it is the only one of its kind, but because it contains the accurate biographical and career data, the industrial affiliations, and the contributions to their field of the notable and important physicians and surgeons, hygienists and dentists who are engaged full-time, part-time, or as consultants, in all the various relations of medical, surgical and hygiene work which industrial medical and health services require of the professions.

Several prominent industrial physicians who should have been in this edition are not. But apparently it was their choice to be "included out." Our policy was only to extend the invitation. Doubtless, however, some of the "R.S.V.P.s" were merely neglected—although we did learn of one man who "doesn't want to be known as an industrial physician."

As the years go on, the field of industrial medicine will become increasingly a source of pride in being connected with it; and the personal credit of having been so connected during the time it was earning its title to respect—and of helping to bring it to that title—will be very much worthwhile. No one need wait, however. The professional talent on the career side of industrial medical practice is already so imposing that it is an honor to belong in its company.

DORLAND LISTS 47 VARIETIES OF

ITCH

...GET TRIPLE-ACTION RELIEF*

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INDUSTRIAL HEALTH and DISEASE

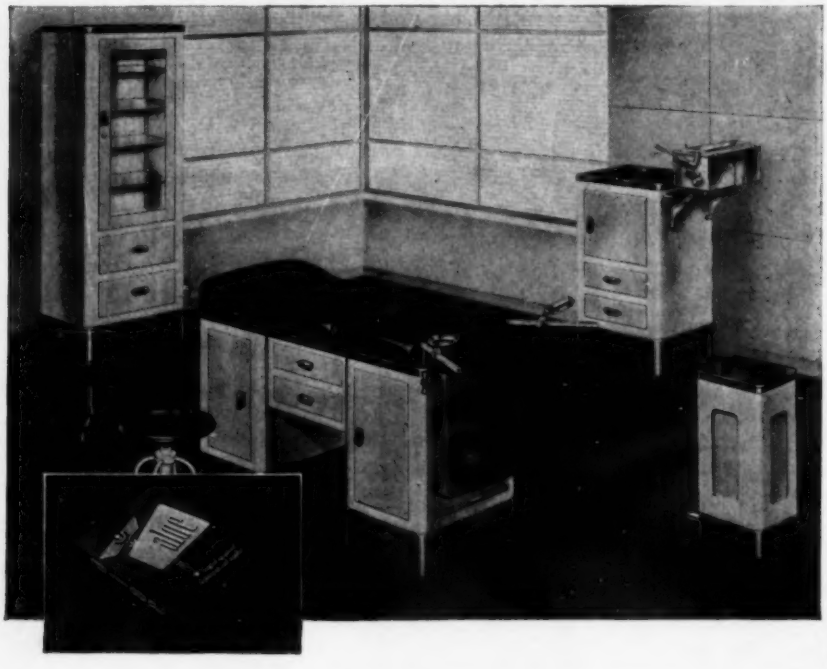
Industrial Hygiene Foundation Medical Conference —November 19, 1947, Pittsburgh—

THE second annual Medical Conference was held on November 19 at the Pittsburgh University Club in connection with the 12th annual meeting of Industrial Hygiene Foundation. Approximately 80 physicians attended, mostly medical directors from Foundation member companies. There was no formal program with prepared papers, but rather, an agenda which was compiled from suggestions made by medical representation among the member firms. The topics for the agenda were listed according to popularity, and of the numerous subjects submitted the top four were covered at the conference. The agenda follows:

DR. A. J. LANZA, Chairman of the Foundation's Medical Committee, acted as chairman of this meeting.

The first item of the agenda was a summary by DR. O. A. SANDER, Milwaukee, of the "Saranac Symposium on the Beryllium Problem." Each salient point of the Saranac Symposium was stressed and defined in this summary. The more obvious points being: (a) nomenclature, (b) the incidence and chemistry of acute pneumonitis, (c) x-ray appearance of pulmonary granulomatosis, (d) the various industries in which beryllium is an ingredient of manufacture, (e) review of the animal experimentation to date and a statement as to the animal experimentation planned for the future, (f) threshold limits qualified further by the statement that: "attempts to set a threshold limit should not be made until much more is known about these materials," (g) future uses of beryllium.

Following DR. SANDER'S excellent summary the participants heard from DR. CECIL G. SHAVER, St. Catherines, Ontario, Medical Consultant to the Abrasive Grain Association. A few years ago DR. SHAVER had the opportunity of reviewing x-ray films and examine men working in the above mentioned industry. His attention was particularly drawn to the films of those men working on or above the level of the electric furnaces. Their roentgenograms and physical findings varied from the normal, but not sufficiently to be classified into any known clinical entity of occupational or non-occupational origin. His medical curiosity caused him to seek further and the passing of time allowed him to add more cases to those already under scrutiny. DR. SHAVER'S contribution to the



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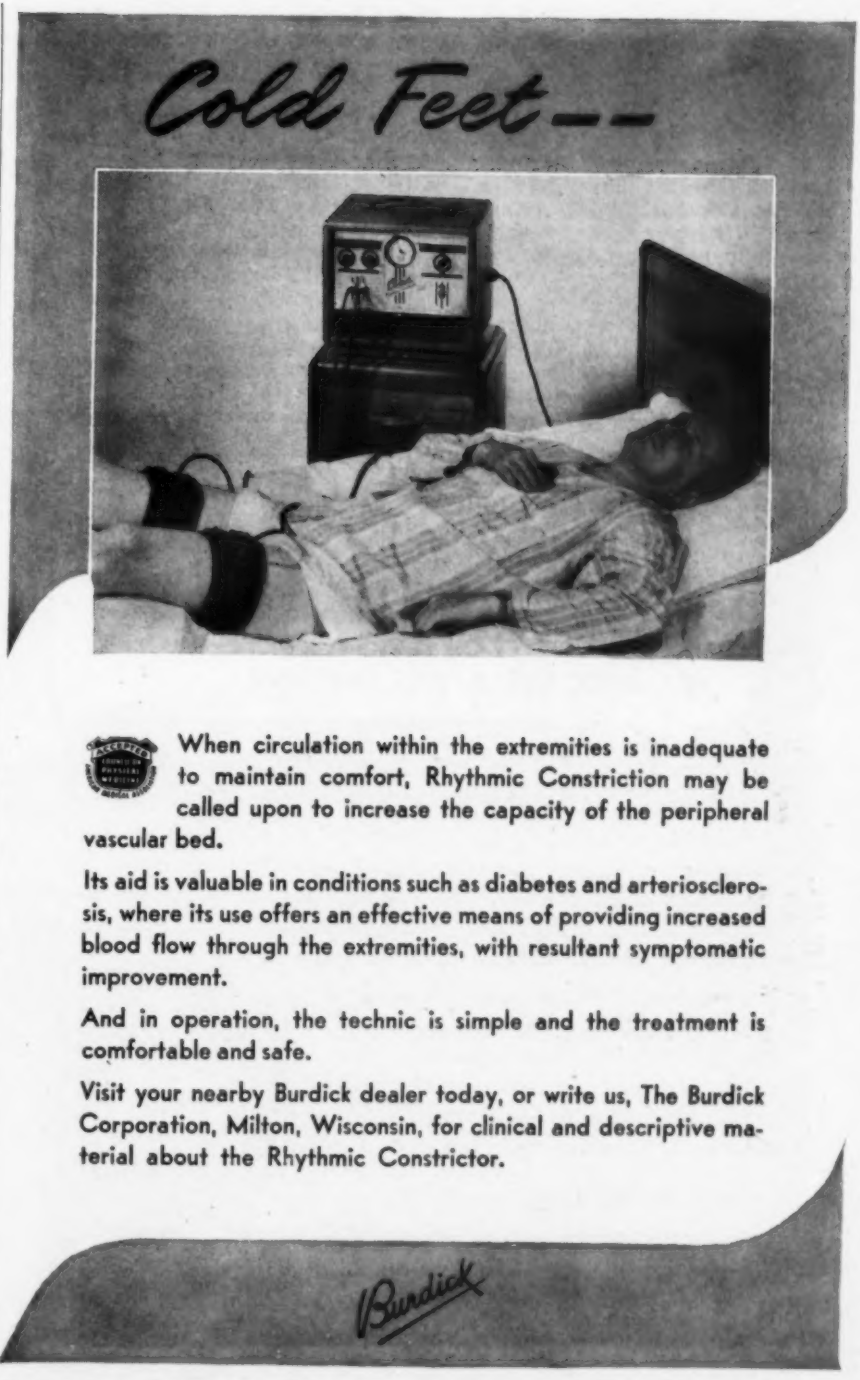
conference was an analysis of all cases to date, 91 in number. He described the early lesion (of which there are now 48 cases) and the lesion, signs, symptoms, etc., of the existing late cases, 43 in number. He also described the pathology, microscopic and macroscopic, of the autopsies of the seven fatal cases. He described the medical sequence of events of the eight cases now totally incapacitated. DR. SHAVER summarized various laboratory and engineering studies of the etiological agent, pointing out such pertinent acts as: (a) the percentage of the various ingredients in the parent material and percentage of those same ingredients in the fume after fusion at high temperature, (b) particle size of material in various environs of the plants, including breathing zone, (c) results of x-ray diffraction analysis. DR. SHAVER then outlined his plan of periodic examination and gave a few case examples.

The next item was "Evaluation of Vision Testing Apparatus." This discussion was opened by DR. C. F. KUTSCHER, Consultant to the Foundaton in Industrial Ophthalmology. He gave a brief review of the anatomy and physiology of the eyes — stressing what the normal eye is capable of doing and how the various degrees of deviation from this normal can be selectively employed in industry. DR. KUTSCHER followed these statements by some excellent examples from personal experience.

DR. HEDWIG KUHN of Hammond, Indiana, then gave a brief but complete description of the various vision testing apparatuses stating the undesirable as well as the desirable features of them. She further examplified occupations where they are of very practical importance. (A meeting had been arranged in the late afternoon for demonstration of three instruments.) This subject was also discussed by DR. DUDLEY A. IRWIN, Medical Director of the Aluminum Company of America, and DR. F. VELA-GONZALEZ, Medical Director of American Smelting and Refining Company, DR. H. L. KRIEGER, Medical Director of Ford Motor Company, and DOCTORS B. L. VOSBURGH and T. L. SHIPMAN, of General Electric Company.

DR. ANNA M. BAETJER, Professor of Physiology, Johns Hopkins University, then presented an analysis of a continuing study of influenza immunization, based upon the experience of a large number of companies throughout the United States. DR. BAETJER gave the first report of this study at the Foundation's 11th annual meeting (see 1946 Transactions). In the current report she also reviewed the incidence of the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scattered epidemics which were encountered during the past year.

The Conference then moved to the University of Pittsburgh where DR. A. J. ALLEN gave a demonstration of the Cyclotron. This particular cyclotron along with its Director played a very important part during the recent World War and is now serving an equally important function in its peacetime activities.

Following luncheon, a talk was given by DR. W. S. McELLROY, Dean of the School of Medicine, University of Pittsburgh. He briefly recapitulated the interest the University of Pittsburgh has shown in industrial medicine since its inception.

DR. R. R. SAYERS, Chairman, Welfare and Retirement Fund, United Mine Workers, formerly Director, Bureau of Mines, outlined some of the functions of various medical programs now existing in this industry, and gave some historical background for these functions. He pointed out many positive findings of the Boone report and compared them, primarily for constancy, with the original survey made some 20 years ago by the U.S. Bureau of Mines.

The afternoon was devoted to two very controversial subjects, not from the standpoint of objective, but rather from the standpoint of the route by which that objective is attained. The topic "Medical Problems of the Aging Employee" was led by DR. C. D. SELBY, Medical Consultant of General Motors Corporation. He stated "percentagewise" some of the positive findings resulting from annual periodic examinations of a certain group who presumably are in the upper age bracket. He then discussed the significance, both to the individual and to management, of these findings. DR. T. L. HAZLETT, Medical Director of the Westinghouse Electric Corporation presented additional data relative to examinations of this age group and offered some suggestions for correction of some of the defects found. DR. RAYMOND HUSSEY, member of the Foundation's Medical Committee, presented a thought which met with approval, "Educate the physician dealing with these problems before exploring the corrective measures applicable to the individual." He also qualified this statement by labeling it the *positive approach*. DR. C. H. MARCY, Foundation Consultant in chest diseases, Pittsburgh, added some statistics on the inadequacy of our general hospital facilities to care for the chronically ill.

"Scope and Character of Work of Industrial Medical Departments" was discussed by DR. E. H. CARLETON, Medical Director, Inland Steel Company. He outlined the more obvious needs and then dwelt to some degree on the hidden requirements. He also pointed out the great benefits which can be given from the indirect services of a well-organized industrial medical department. He qualified his point by numerous examples. DR. L. C. McGEE, Medical Director, Hercules Powder Company, continued the discussion by a very lively round-table questionnaire.

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COMMENT and OPINION

World Health Organization

A TECHNICAL publications program covering such matters as epidemiology, health legislation, and the work of expert committees has been established, and is now in full operation. The publications include the *Bulletin of the World Health Organization*, the *Digest of Health Legislation*, the *Chronicle of the World Health Organization*, *Official Records of the World Health Organization*, the *Weekly Epidemiological Record*, and the *Epidemiological and Vital Statistics Report*.

MAC's

THE PHILOSOPHY of the Maximum Allowable Concentration: Values for maximum allowable concentrations have often, in the past, been published in industrial hygiene literature and been included in state codes without adequate definition. Their use in control of hazards should be based on a knowledge of the criteria used in establishing them as well as the limitations of the sampling and analytical procedures. It was suggested that one list be published from existing pathological or toxicological data; and another based on comfort levels. There seemed to be general agreement that redefinition of terms is necessary and that industries having large bodies of data in support of, or in contradiction to, existing values of maximum allowable concentrations should take the lead in correcting the published values.

—From "Summary of Chemical and Toxicological Conference," Industrial Hygiene Foundation, November 21.

The Editor is Inoculated

WE DON'T know how many positive cases of tuberculosis the 6,288 chest x-rays taken in Cheviot, Westwood and Fairmount during the past two weeks will reveal. We hope there will be none. But we do know one thing these programs have already revealed emphatically and dramatically, and that one thing is all to the good. We refer to the tremendous potential of community spirit indicated by the participation and support given these programs in the three communities. An editor of a community newspaper can grow cynical about this community spirit business quite readily as he observes the usual order of civic procedure in which the general attitude all too frequently is "let Hills, its organizations and its George do it"—and then let good old "George" have it in the neck for "trying to run the show" after it is all said and done. But the free chest x-ray program just didn't work that way—and a notable example of community service which may even save some lives has resulted. It seemed that everyone was ready to help "George" this time. The whole program has inoculated this particular editor against the occupational disease of editorial cynicism for a long time to come. We are proud of the Western

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people generally, and we are proud, too, of being citizens of a country that supports, through private, personal giving, such agencies dedicated to the public good as the Anti-Tuberculosis League—A.H.H.

—*Cheviot, Ohio, Western Hills Press,* January 30, 1948.

Boston Convention Program
see page 100

The Outlook

WHAT is the outlook on health and medical legislation in the present session of the Congress? The following information and predictions have been culled from various reliable sources. Obviously, Congress may cross up the prophets, as anything can happen in an election year. Nevertheless, the situation as of the present, appears to stack up as follows: Those who heard or read President Truman's state-of-the-nation message, delivered to Congress on January 7, will not need to be convinced that the President intends to detour to the left. It will be noted that his plea for enactment of a system of compulsory health insurance was one of the top-bracket sections of his speech. As one writer expressed it, the address sounded like a New Deal speech "warmed over." Regardless, there seems to be little likelihood of the enactment of a compulsory health insurance scheme during the present session of Congress which, it is said, will wind up if possible around June 1, prior to the Party Nominating Conventions. Obviously, S. 130, the Wagner-Murray-Dingell Bill, or some revamped version of that measure, will have to be watched. There will be more hearings—for the record. There has been considerable guessing as to what will happen to S. 545, the Taft-Ball-Smith Bill. There will be addiitional hearings. It is reported that Senator Taft has some amendments to offer. Some have predicted that this measure, which is a voluntary plan whereby the Federal Government would offer financial assistance to states which need money to provide health and medical care for those who can't afford it, might be passed by the Senate. However, there appears to be general agreement that the House is not interested at present in approving any legislation of this kind—even the Taft Bill.

—*Ohio State Med. J.,* February, 1948.

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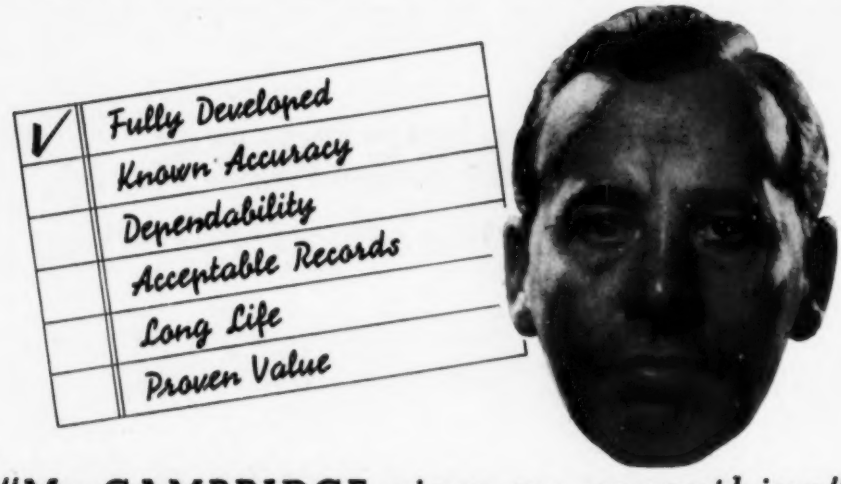

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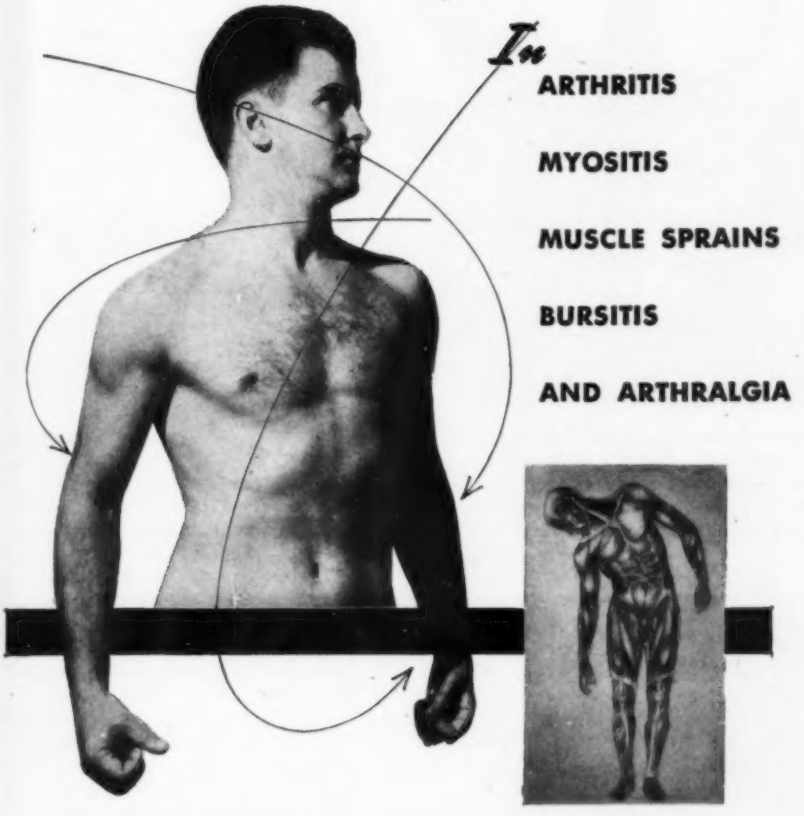
"Let Not Thy Left Hand"

THE United States Public Health Service certainly follows the old Biblical injunction. As followers of these columns know from recent issues, the distinctly "left" hands of the U.S.P.H.S. and other Federal bureaus are marching up and down the land—and even visiting foreign lands—stumping for compulsory



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Federal sickness insurance and government control of medicine, using arguments based upon the supposedly deplorable state of the nation's health. My, Oh My, how sick the nation is, to hear the left hand speak. Goodness me, how the medical profession has failed. It's terrible, how a third of our population can't find a doctor when one is wanted—and how they can't pay him if they do find him. Now comes the right hand—of the self-same U.S.P. H.S.—in a statement to the press that "the general health of the people of the United States, maintained during the war years at a higher than prewar level, continued favorable during the first six months of 1947"...Of course there is plenty of room for improvement; no scientific man would deny it. The medical profession will lower future mortality rates, is constantly doing so, and neither the medical profession nor the great American public needs to be socialized or communized or nazified to do it.

—*Rocky Mountain M. J.*, January, 1948.

DR. PILGRIM

AND continuing with the convalescence, reading in "The Pilgrim's Progress" the following noted by MADAME CUMMINGS and which seems apropos just now—

"Who would true valour see,
Let him come hither;
One here will constant be,
Come wind, come weather.
There's no discouragement
Shall make him once relent
His first avow'd intent
To be a pilgrim.

"Who so beset him around
With dismal stories,
Do but themselves confound,—
His strength the more is;
No lion can him fright,
He'll with a giant fight;
But he will have a right
To be a pilgrim.

"Hobgoblin nor foul fiend
Can daunt his spirit;
He knows he at the end
Shall life inherit.
Then fancies fly away,
He'll fear not what men say;
He'll labour night and day
To be a pilgrim."

AND giving the various nurses names according to their personalities and other considerations, there being "Cheerful Pulvule" (mindful here of Eli Lilly)—another "Tonic" and a third "Halo" because of the following episode: For a number of weeks being without the customary tobacco and various other indulgences, one of the attending men suggested the beginning of a low caloric diet, to which Pilgrim demurred, thus saying to one of the nurses that he thought he had done very well on the previous restrictions and could see no reasons for further entrenchments—to which she replied as she made an exit from the room, "Don't you think your halo is getting just a little bit tight?" Then many visitors and telephone calls, among them DRS. STERNER, STEINBERG, COTT, DOLKART. KELLY, PETERSON, FLINN, EDINGER, BROWN, DEY, GARDINER, XAVIER, DRUECK, JOHNSTONE, HEFFNER, HERBERT, LYON, HAZLETT, HOLMBLAD, and LUTZ, and MESSRS. GLIDDEN, WALWORTH, COOK, WOODS, ROSS, WESTRATE, TALLEY, VOIT, JUNIAC, McMAHON, GORDON, LE-

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GERE, and HILLER—and including long distance conversations with the brothers in Detroit and San Francisco...AND much consideration of editorial material and manuscripts, including writing a guest editorial and short filler material for a nurses' alumnae magazine, written especially from the viewpoint of a patient's experience...AND meanwhile continuing to enjoy the Saturday and Sunday symphony broadcasts (and the First Piano Quartette) especially Kallinokow, Schubert's C Major, Mozart's Violin Concerto in A major, Beethoven's 4th and 7th, Haydn's C minor, Tchaikowski's 4th and 7th, Moussorsky's "Pictures at an Exhibition" (directed by Toscanini) Dvorak's 4th, and particularly the nostalgic Goldmark's "Rustic Wedding"...AND reading many interesting stories of mystery and intrigue for much relaxation. And running across an unusual account of Oliver Wendell Holmes, where he refers to occupational disease in his experience as a first-year medical student, to wit: "For during that year I first tasted the intoxicating pleasure of authorship. A college periodical, conducted by friends of mine, still undergraduates, tempted me into print, and there is no form of lead poisoning which more rapidly and thoroughly pervades the blood and bones and marrow than that which reaches the young author through mental contact with type-metal. *Qui a bu, boboira*—he who has once been a drinker will drink again, says the French proverb. So the man or woman who has tasted type is sure to return to his old indulgence sooner or later. In that fatal year I had my first attack of author's lead poisoning and I have never got quite rid of it from that day to this"...THEN the day to go to the domicile and thence to make further progress, what with accustoming one's self to clothes and walking about; and with various duties, sitting now at a desk with attention to format changes in publication details and study of programs of coming meetings; and there being many telephone calls, with discussion of many varieties of technical problems and advice on procedures to follow, including medicolegal, administrative and medico-engineering experiences...AND realizing there are many things we take for granted among the simple circumstances of daily life, which later become privileges under other conditions; and remembering now the recent words of Jimmy Durante, so well expressed with his characteristic enthusiasm: "I am now recuperating from my convalescence"—of which more later.

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The Uses of Vitamins in the Treatment of Chronic Arthritis; Traeger, C.H.; The Medical Clinics of N. Am. 30:616 (May) 1946.

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The External Cod-Liver Oil Therapy

USED EFFECTIVELY IN THE TREATMENT OF

Wounds, Burns, Ulcers, especially of the Leg, Intertrigo, Eczema, Tropical Ulcer, also in the Care of Infants

Desitin Ointment contains Cod-Liver Oil, Zinc Oxide, Petrolatum, Lanum and Talcum. The Cod-Liver Oil, subjected to a special treatment which produces *stabilization* of the Vitamins A and D and of the unsaturated fatty acids, forms the active constituent of the Desitin Preparations. The first among cod-liver oil products to possess unlimited keeping qualities, Desitin, in its various combinations, has rapidly gained prominence in all parts of the globe.

Desitin Ointment is absolutely non-irritant; it acts as an antiphlogistic, allays pain and itching; it stimulates granulation, favors epithelialisation and smooth cicatrisation. Under a Desitin dressing, necrotic tissue is quickly cast off; the dressing does not adhere to the wound and may therefore be changed without causing pain and without interfering with granulations already formed; it is not liquefied by the heat of the body nor in any way decomposed by wound secretions, urine, exudation or excrements.

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Indications: Minor Burns, Exanthema, Dermatitis, Care of Infants, Care of the Feet, Massage and Sport purposes.

Desitin Powder is saturated with cod-liver oil and does not therefore deprive the skin of its natural fat as dusting powders commonly do. Desitin Powder contains Cod-Liver Oil, (with the maximum amounts of Vitamins and unsaturated fatty acids) Zinc Oxide and Talcum.

Professional literature and samples for Physicians' trial will be gladly sent upon request.

Sole Manufacturer and Distributor in U. S. A.

DESITIN CHEMICAL COMPANY

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Consider THE COLON

At least 80% of all arthritics (according to outstanding authorities) present ptosis, dilatation and/or atony of the colon, with functional impairment.

To combat such gastro-intestinal dysfunction through thorough systemic detergence Occy-Crystine is widely employed because of its effectiveness in promoting: *prompt relief* of colonic stasis . . . *marked improvement* of liver and gallbladder functions . . . *stimulation* of renal clearance of toxins . . . and *release of colloidal sulfur*, so frequently deficient in the arthritic economy. Include Occy-Crystine as an adjunct to treatment of your next few cases of arthritis.

FORMULA: Occy-Crystine is a hypertonic solution of pH 8.4, made up of the following active ingredients: Sodium thiosulfate, and magnesium sulfate, to which the sulfates of potassium and calcium are added in small amounts, contributing to the maintenance of solubility.

OCCY-CRYSTINE

— the sulfur-bearing saline detoxicant-eliminant

OCCY-CRYSTINE LABORATORY • SALISBURY, CONN.

Send FOR CLINICAL TRIAL SAMPLES

OCCY-CRYSTINE LABORATORY, Salisbury, Conn.
Please send clinical trial samples of Occy-Crystine. (C-28)

Dr._____

Address_____

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THOSE WHO KNOW SOAP AGREE IT PAYS TO SUPPLY YOUR WORKERS WITH

FORMULA SBS-11

HEAVY DUTY SKIN CLEANSER

New, improved Formula SBS-11 is the skin cleanser that has all the extras that make it tops for use in industrial washrooms. It's extra quick — extra thorough — extra mild — extra safe!

Black light tests prove that Formula SBS-11 removes stubborn grease, grime, and soil that many ordinary cleansers can't budge. Yet it leaves hands soothed and refreshed. Here's why:

Formula SBS-11 contains these four ingredients: 1) Mild, gentle low-titer soap that goes into solution quick! 2) a detergent of low pH value that creates billowing suds to help remove dirt and flush it away; 3) a generous percentage of corn meal that acts as a gentle scrubbing agent, lifting loosened dirt from the skin; 4) an emollient that soothes hands and helps protect against irritation. No alkali or phosphate builders.

That's why new, improved Formula SBS-11 gets hands safely clean in a jiffy — and that's why it belongs in your washrooms. It's economical, too, because it's a light, fluffy powder that gives you more washes per pound.

SPECIAL! New type R dispenser. Tough, rugged, steel construction, plated with nickel, copper and chrome. Can't clog or leak, can't be pilfered, deposits a metered amount of SBS-11 for top washing efficiency and economy.

We'll be in booth No. 3 at the annual meeting in Boston on March 30th. STOP IN FOR COMPLETE PARTICULARS ON NEW, IMPROVED FORMULA SBS-11.

SUGAR BEET PRODUCTS CO.

Chemical By-Products Div., Saginaw, Michigan

FORMULA SBS-11

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Thantis Lozenges have proved especially effective in soothing and relieving these conditions. The effectiveness of Thantis Lozenges is due to two active ingredients:

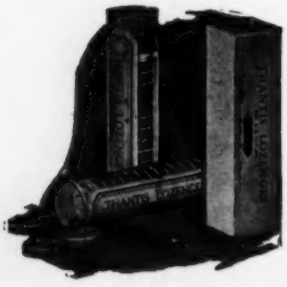
Merodicein* an antiseptic which prevents the development of bacteria even in great dilution

Saligenin† a mild local anesthetic which relieves the discomfort of throat infections.

Thantis Lozenges are antiseptic and anesthetic for the mucous membranes of the throat and mouth. Complete literature on request.

Supplied in vials of twelve lozenges each.

* Merodicein is the H. W. & D. trade name for monohydroxymercuridiiodoresorcinsulfonphthalein-sodium.
† Saligenin is orthohydroxybenzylalcohol, H. W. & D.



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The Nose Ointment With Applicator

V-E-M, the nose ointment which has been detailed to physicians for over thirty years now finds a useful place in industry.

People working in dusty jobs and those wearing respirators will find their noses much more comfortable at the end of the day when they put a "spot" of V-E-M in each nostril in the morning.

V-E-M is a mildly medicated ointment for increasing the flow of mucous and thus wash out the nostrils in a natural way. It spreads to the accessible membranes to cling and partially protect them for hours against dust and fumes. The petroleum base of V-E-M has a melting point of about 102° Fahrenheit which with the other medication brings the melting point to around nose temperature. There's a patented applicator which places a measured amount of ointment in the nostril. A simple snuff-up carries it well up against the turbinates. To relieve stuffiness and the irritation of dust, smoke, fumes, and head colds, remember V-E-M for real comfort!

Write for FREE SAMPLES and Prices to---

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Caldwell, New Jersey

A Better Nutritional Start For The Day

Despite the unanimous agreement among all nutritionists and dietitians that breakfast should provide from one-fourth to one-third of the daily caloric and nutrient needs, a large segment of our population fails to eat an adequate morning meal. Not only adults, but also children of school age are guilty of this practice which is bound to decrease morning acuity and stamina, and to impose an almost impossible burden upon the other two meals to overcome the deficit created.

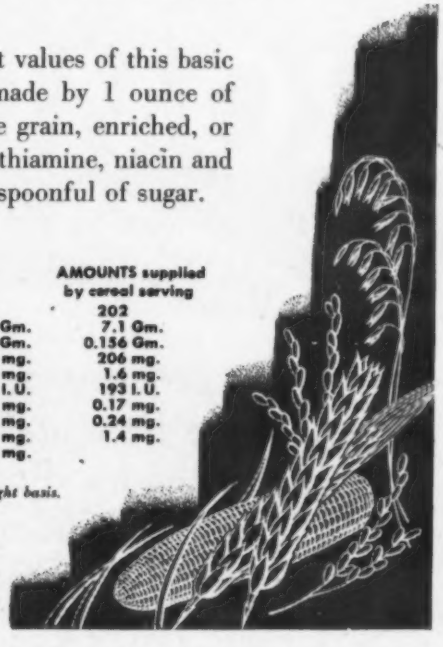
A widely endorsed basic breakfast pattern provides the foundation upon which a better nutritional start for the day can be built. Supplying fruit, cereal, milk, bread and butter, it contributes 611 calories and virtually all essential nutrients in generous amounts. The cereal serving, consisting of hot or ready-to-eat breakfast cereal, milk, and sugar, is the main dish of this meal. It supplies significant amounts of the nutrients provided by the breakfast, and adds both taste appeal and variety.

The table indicates the nutrient values of this basic breakfast and the contribution made by 1 ounce of ready-to-eat or hot cereal* (whole grain, enriched, or restored to whole grain values of thiamine, niacin and iron), 4 ounces of milk and 1 teaspoonful of sugar.

The presence of this seal indicates that all nutritional statements in this advertisement have been found acceptable by the Council on Foods and Nutrition of the American Medical Association.

BASIC BREAKFAST	TOTALS supplied by Basic Breakfast		AMOUNTS supplied by cereal serving
Orange juice, 4 oz.;	CALORIES	611	202
Ready-to-eat or Hot Cereal, 1 oz.;	PROTEIN	20.7 Gm.	7.1 Gm.
Whole Milk, 4 oz.;	CALCIUM	0.465 Gm.	0.156 Gm.
Sugar, 1 teaspoon;	PHOSPHORUS	488 mg.	206 mg.
Toast (enriched, white), 2 slices;	IRON	3 mg.	1.6 mg.
Butter, 5 Gm. (about 1 teaspoon);	VITAMIN A	1074 I. U.	193 I. U.
Whole Milk, 8 oz.	THIAMINE	0.32 mg.	0.17 mg.
	RIBOFLAVIN	0.87 mg.	0.24 mg.
	NIACIN	2.3 mg.	1.4 mg.
	ASCORBIC ACID	64.8 mg.	

*Composite average of all breakfast cereals on dry weight basis.



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STEP ON

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used, not avoided

MARK TIME

ECONOMICALLY
sprayed, not poured

STEP OFF

EFFECTIVELY
proved in practice

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As a nerve sedative during the day prescribe one Bromural tablet every three to five hours. For a prompt hypnotic action give 2 to 4 tablets at bedtime, or upon awakening during the night. Bromural is neither a barbiturate nor a bromide.

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Available as 5 grain tablets and as a powder . . .

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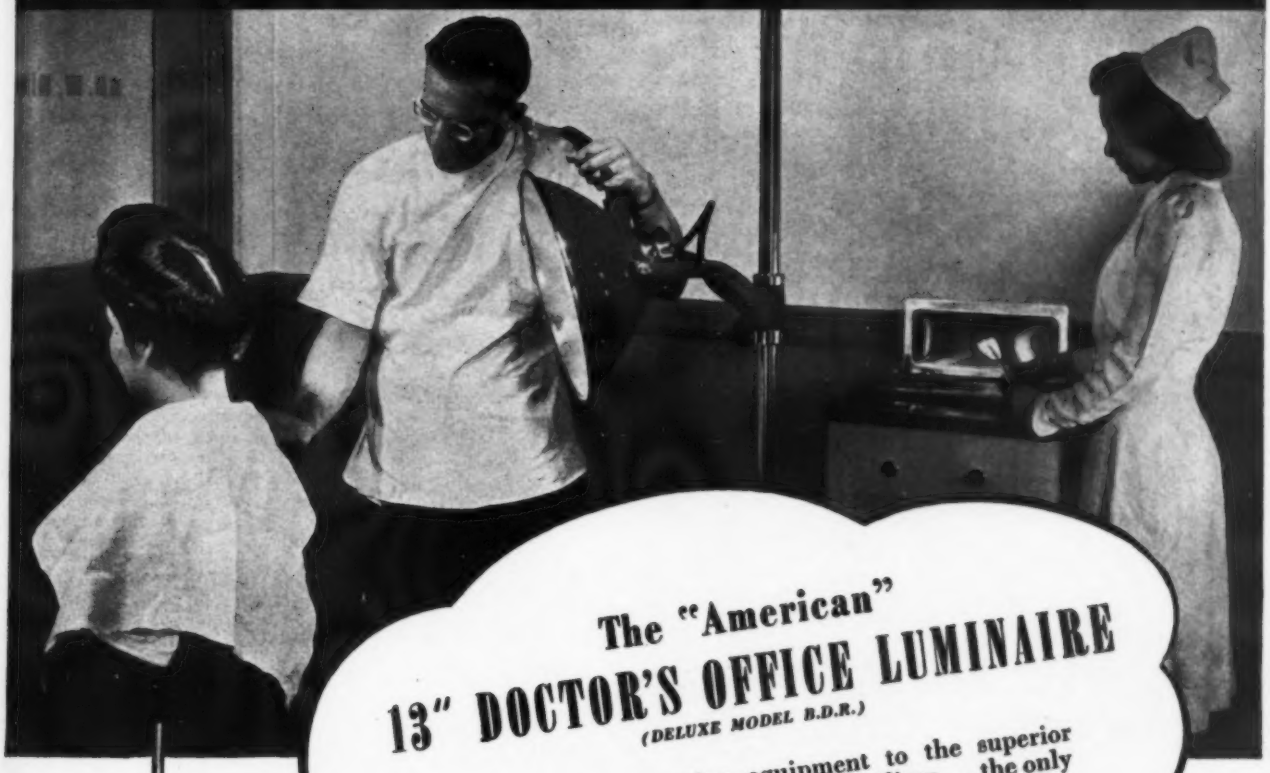
Brilliant Illumination on Low Wattage
...with fingertip control



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13" DOCTOR'S OFFICE LUMINAIRE
(DELUXE MODEL B.D.R.)

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MANEUVERABILITY . . . This superior portable model has four ball bearing casters which assure stability and free mobility. The light head has a vertical adjustment range from 36" to 72" from the floor level, and a horizontal adjustment for any desired angle.

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AT HOME OR AWAY SPOT TESTS SIMPLIFY URINALYSIS

NO TEST TUBES • NO MEASURING • NO BOILING

Diabetics welcome "Spot Tests", (ready to use dry reagents), because of the ease and simplicity in using. No test tubes, no boiling, no measuring; just a little powder, a little urine—color reaction occurs at once if sugar or acetone is present.

Galatest *Acetone Test* (DENCO)

FOR DETECTION OF SUGAR IN THE URINE FOR DETECTION OF ACETONE IN THE URINE

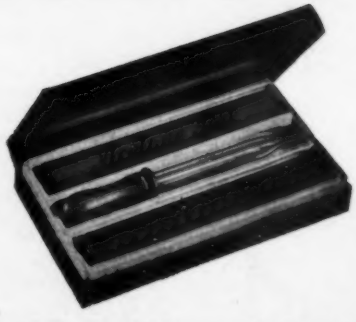
SAME SIMPLE TECHNIQUE FOR BOTH

1. A LITTLE POWDER 2. A LITTLE URINE

COLOR REACTION IMMEDIATELY

Accepted for advertising in the Journal of the A.M.A.

Write for descriptive literature



A carrying case containing one vial of Acetone Test (Denco) and one vial of Galatest is now available. This is very convenient for the medical bag or for the diabetic patient. The case also contains a medicine dropper and a Galatest color chart. This handy kit or refills of Acetone Test (Denco) and Galatest are obtainable at all prescription pharmacies and surgical supply houses.

Acetone Test (DENCO)... *Galatest*

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Gratifying Relief

. . . through Urogenital Analgesia

The oral administration of 2 Pyridium tablets *t.i.d.*, will promptly relieve distressing urinary symptoms in a large percentage of ambulant patients, thereby permitting them to pursue their normal activities without undue disturbance.

Following oral administration, Pyridium produces a definite analgesic effect on the urogenital mucosa. This action contributes to the prompt and effective relief that is so gratifying to patients suffering from disturbing symptoms such as painful, urgent, and frequent urination, nocturia, and tenesmus.

Therapeutic doses of Pyridium may be administered throughout the course of uncomplicated cystitis, pyelonephritis, prostatitis, and urethritis, without danger of serious side reactions.

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(Phenylazo-alpha-alpha-diamino-pyridine mono-hydrochloride)

MERCK & CO., Inc. RAHWAY, N. J.

Manufacturing Chemists

In Canada: MERCK & CO., Ltd. Montreal, Que.

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IS WOVEN WITH

Live Rubber Thread

And that's the reason for TENSOR'S elasticity—TENSOR stretches to over twice its own length! *Live rubber* warp threads, sheathed in soft cotton yarn, "give" as bandaged parts move, yet provide therapeutic support.

Some common uses of TENSOR are shown at left. You'll find a host of others in your daily practice—and you can depend on TENSOR for efficient performance. Recommend TENSOR with confidence, for *any* elastic bandage use.

TENSOR has these advantages:

- exerts constant, controlled pressure without constriction.
- has *uniform elasticity*—rubberless bandages can't match its "stretch."
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- *is inconspicuous*—women patients will wear TENSOR readily.
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In 2 - 2½ - 3 - 4 and 6 inch widths by 5½ yards stretched.

*Reg. U. S. Pat. Off.

THERE IS NO BETTER ELASTIC BANDAGE THAN TENSOR!

A product of

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TENSOR *Elastic* BANDAGE

Americaine

REG. U.S. PAT. OFF.

TOPICAL ANESTHETIC OINTMENT

A NEW DISCOVERY

Only Americaine Ointments Contain

20% BENZOCAINE IN SOLUTION

The unique combination of the active ingredients of Americaine Ointments make them ideally suited for treating industrial burns, surface injuries and dermatoses. Americaine Topical Anesthetic Ointments — clear or with chlorophyll — bring rapid relief from pain and itching and prevent surface infections in many types of injuries and dermatologic conditions encountered in industry.

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Combat Functional

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Two Ways

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For happier, more comfortable, more productive hours for your girls, suggest Hillman's D Compound. Used in industry since 1930. Send for generous Trial Supply for your First Aid Room.

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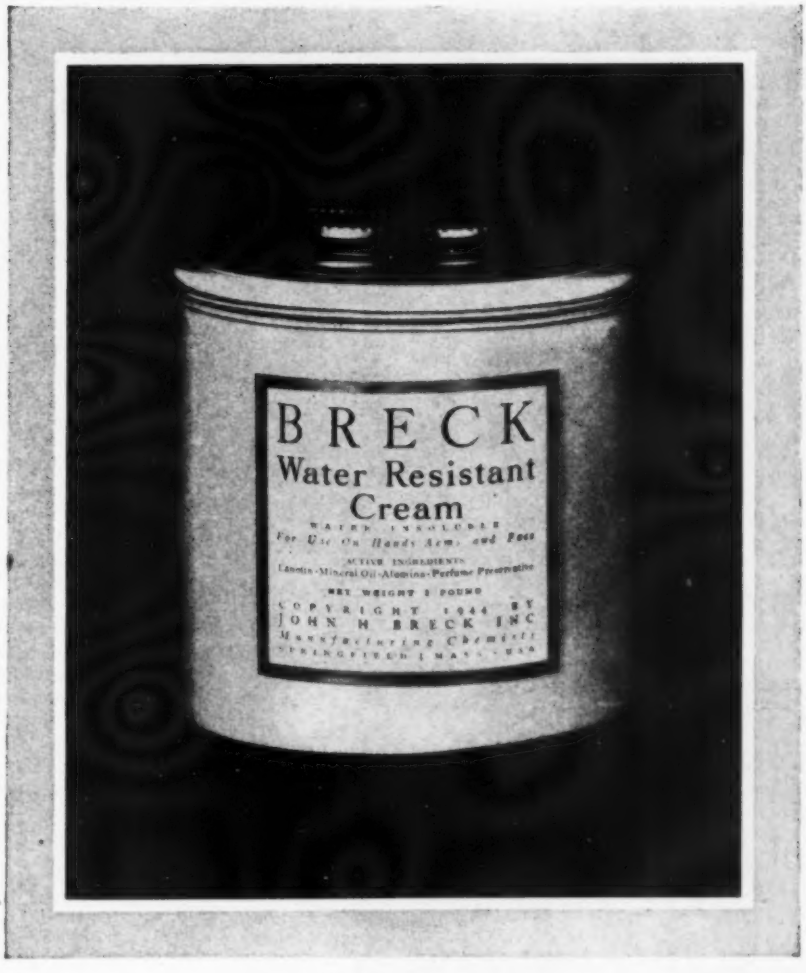

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America's Largest Printers to the Professions

Making the wheels go 'round

Sluggish workers slow down industry's wheels—waste man hours—increase the danger of accidents.

When sluggishness is due to faulty elimination, recommend TAXOL . . . mild, non-griping laxative for relief from continued constipation.

Long experience indicates that TAXOL rarely loses its efficiency in repeated use. In many instances, usage over a period of years has not necessitated increased dosage—has even resulted in gradual reduction.

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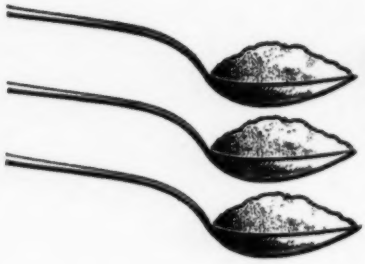
FLEXIBLE DOSAGE—Depending upon individual need, 1 to 6 tablets daily, swallowed without chewing, before meals or at bedtime. Any laxative is contraindicated if symptoms of appendicitis or intestinal obstruction are present.

TAXOL

LOBICA, Inc. • 1841 Broadway • New York 23, N.Y.

*Aperient

*Laxative



*Cathartic

*Average dose

a balanced saline combination which acts by simple osmosis to dilute fecal residue and produce soft fluid bulk....
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CATHARTIC
EFFERVESCENT—SALINE
INGREDIENTS: SODIUM SULPHATE · SODIUM PHOSPHATE · LITHIUM CARBONATE · CITRIC ACID
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evokes peristalsis and evacuation by nature's own methods.

Product of BRISTOL-MYERS
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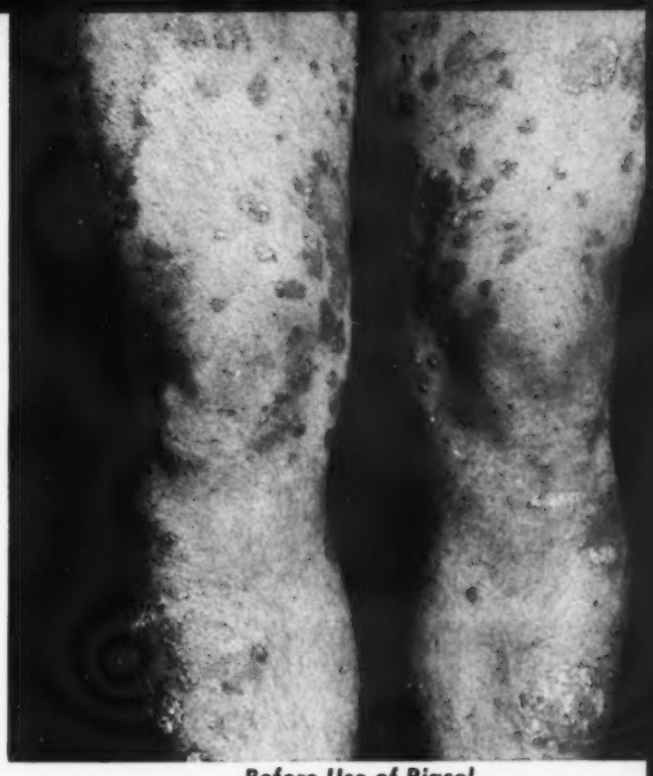
New York 20, N. Y.

☒ RIASOL
the Doctors' Choice in Psoriasis



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RIASOL for PSORIASIS

all the advantages of iodine

FOR TOPICAL APPLICATION

with no disadvantages

BACTERIOSTATIC

FUNGISTATIC

NON-IRRITATING

WATER MISCIBLE

Vodine

BRAND

EFFECTIVE CONCENTRATION

OF "FREE" IODINE IN SOLUSALVE*

Samples and brochure sent upon request

Many years of research and clinical usage has left iodine the uncontested bactericidal agent. Published reports show that "the iodine solution can be diluted over eighty times and still be as bactericidal as the strongest of the other germicides."[1]

Vodine now makes it possible to utilize the high bactericidal power of iodine against both gram-negative and gram-positive organisms without the old discomfort of "smarting," burning and staining.

Vodine Ointment—"free" iodine in a bland, non-irritating base—is indicated wherever effective topical antisepsis is required: infectious dermatoses, cuts, burns and lacerations. Vodine Ointment has the added advantage of being noninjurious to even delicate skin and may be used safely under bandages or surgical dressings.

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1. New England J. Med. 213:279

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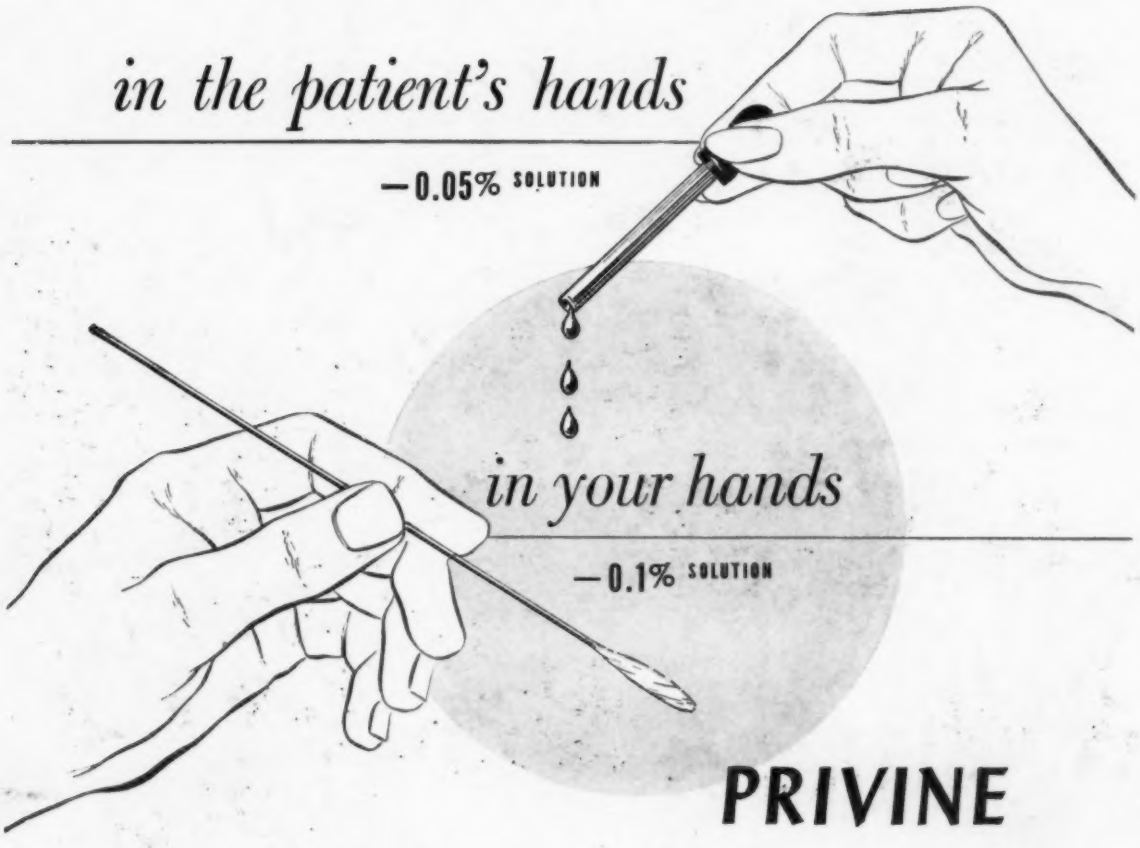

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